



DUAL INDUCTION LOG

Company	HAYES OIL & GAS, LLC.	Company	HAYES OIL & GAS, LLC.
Well	HUCK #1-5	Well	HUCK #1-5
Field	UNNAMED	Field	UNNAMED
County	COMANCHE	County	COMANCHE
State	KANSAS	State	KANSAS
Location:	AP1 #: 15-033-21794-0000 1650' FNL & 2310' FEL NW - SW - NE	Other Services CDL/CNL/PE MEL/SONIC	
Permanent Datum	GROUND LEVEL	Elevation	2154
Log Measured From	KELLY BUSHING 12' A.G.L.	K.B. 2166 D.F. 2164 G.L. 2154	
Drilling Measured From	KELLY BUSHING		
SEC 5 TWP 32S RGE 18W			
Date	9/3/22		
Run Number	ONE		
Depth Driller	5925		
Depth Logger	5926		
Bottom Logged Interval	5924		
Top Log Interval	00		
Casing Driller	8 5/8"@810'		
Casing Logger	810		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 8,600 PPM	
Density / Viscosity	9.1/49		
pH / Fluid Loss	8.5/12.4		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.600@72F		
Rmf @ Meas. Temp	.450@72F		
Rmc @ Meas. Temp	.720@72F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.325@133F		
Time Circulation Stopped	3 HOURS		
Time Logger on Bottom	7:30 A.M.		
Maximum Recorded Temperature	133F		
Equipment Number	922339		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	TIM HEDRICK	SHAYNE HAYES	

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

15-033-21794-0000

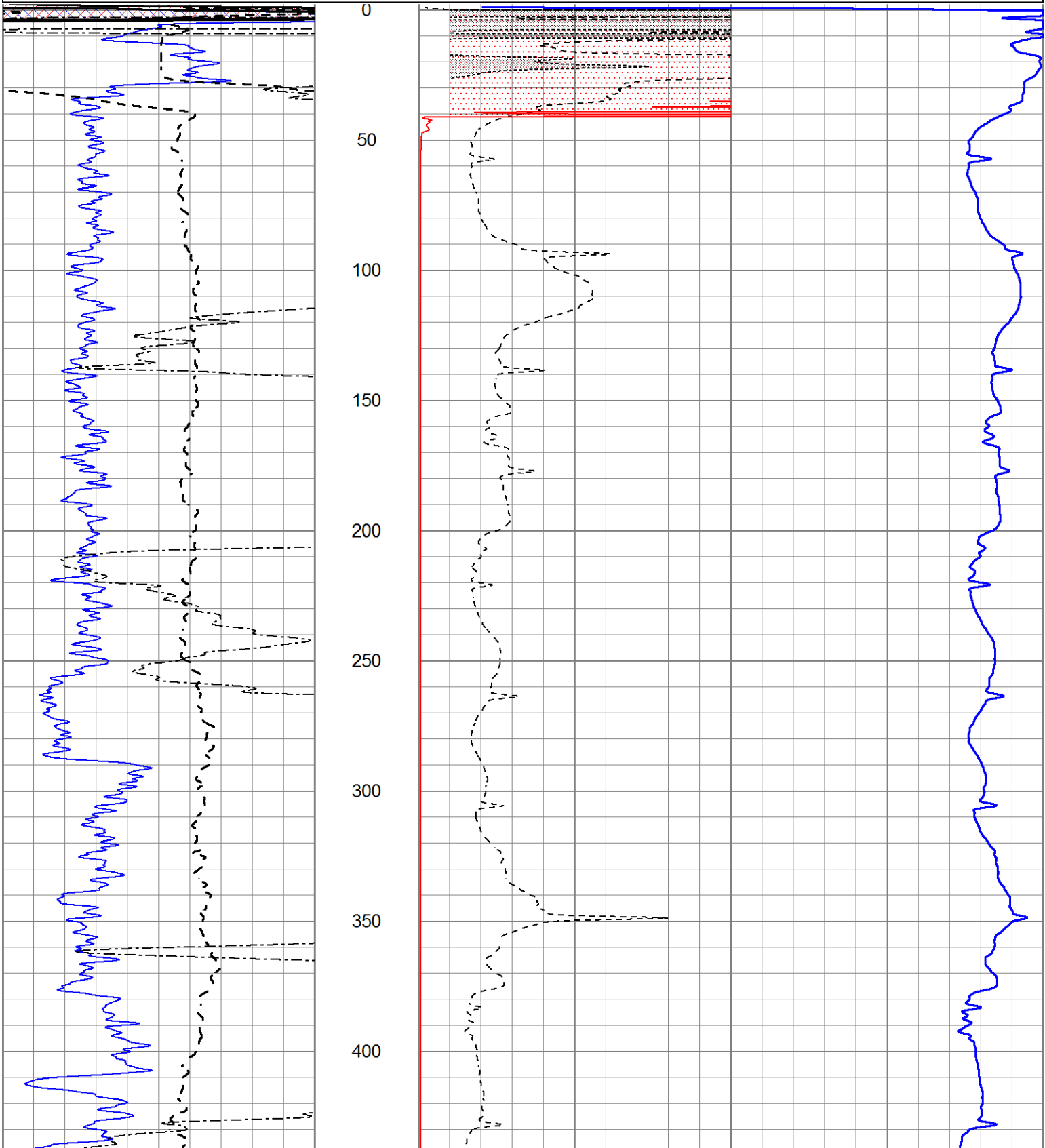
Comments

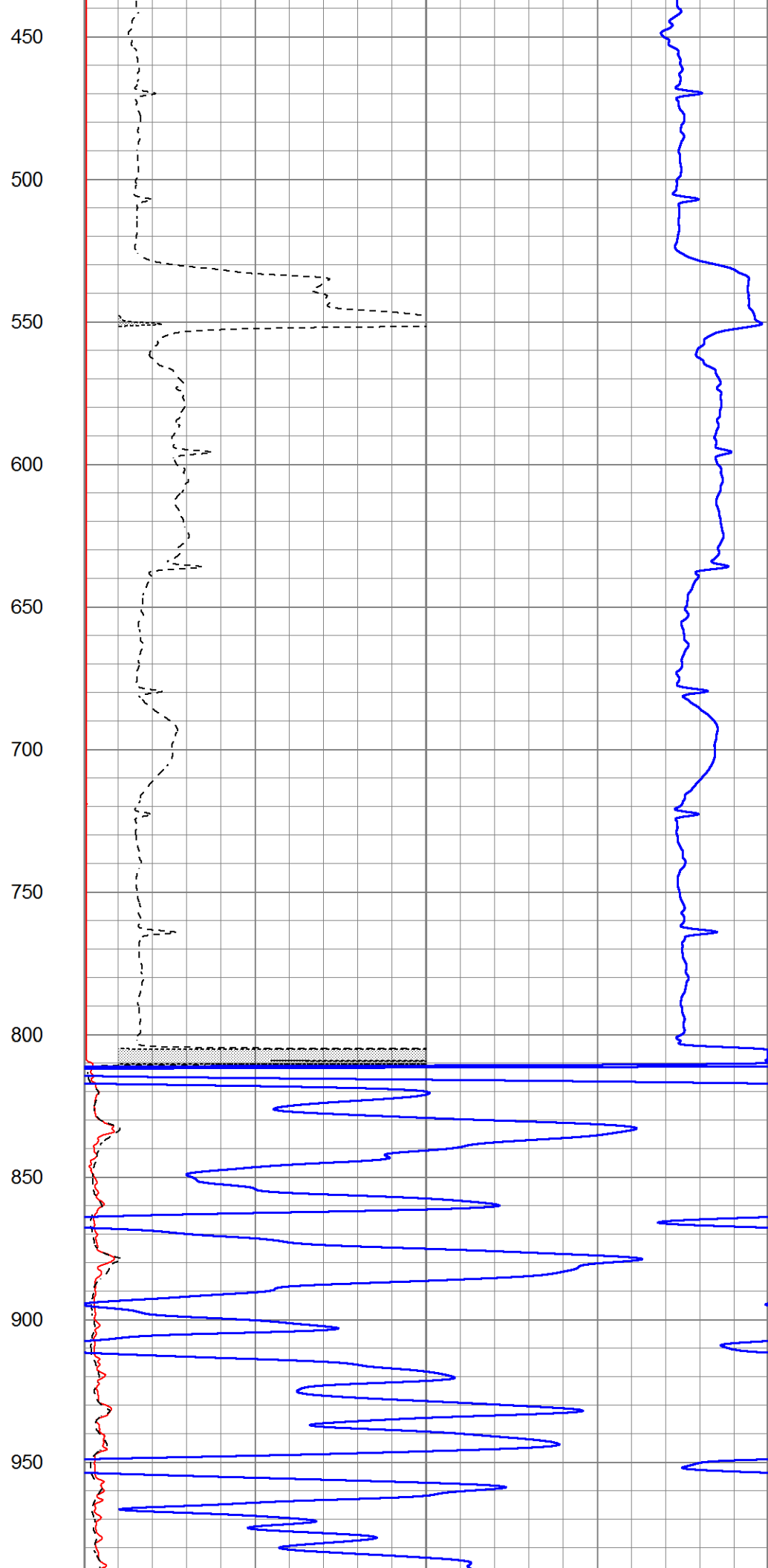
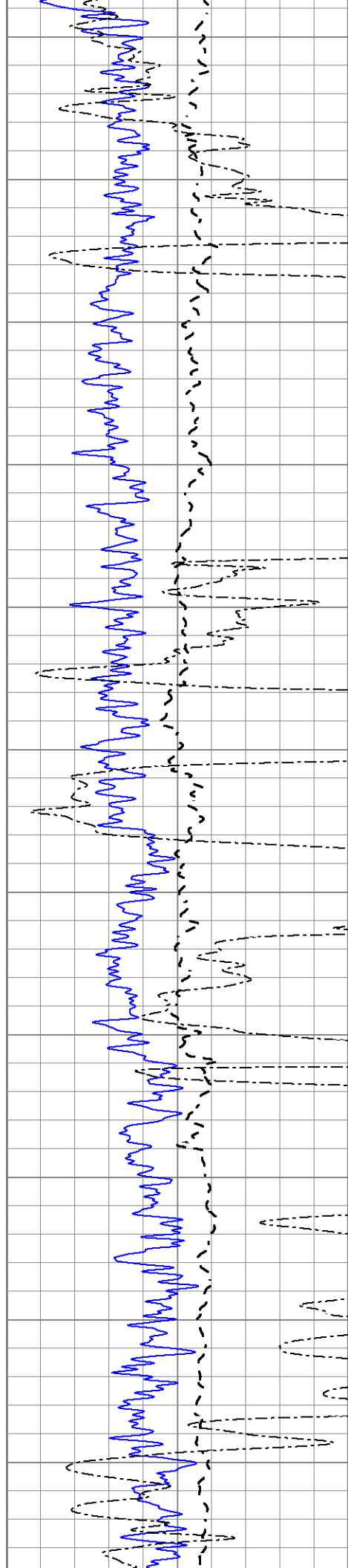
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
COLDWATER, KS. (JUNCTION HWY 183 & 160) 2E. TO "RD. 15, 3/4N., W. INTO NORTH OF RED SHEET

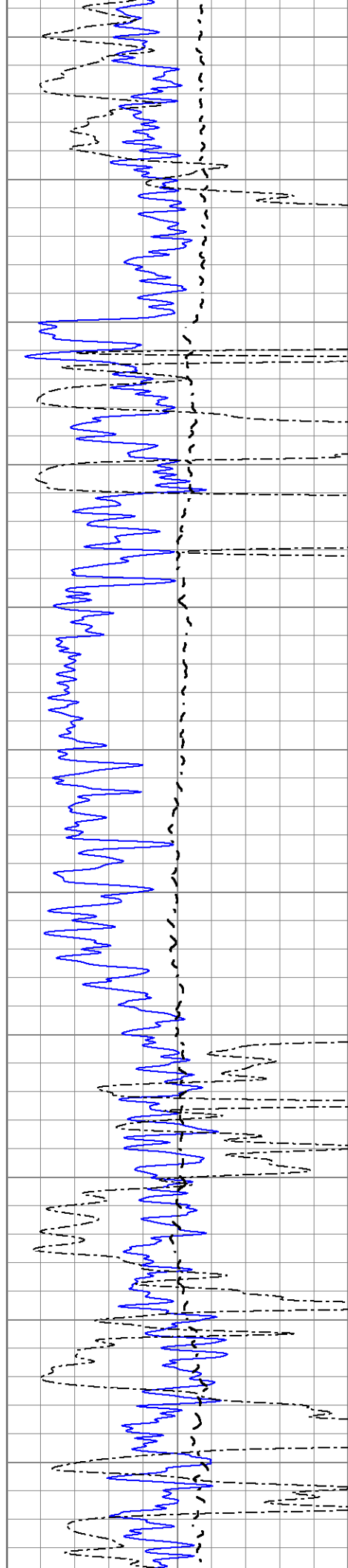


MAIN SECTION

0	Gamma Ray (GAPI)	150	1000	CILD (mmho/m)	0
-100	SP (mV)	100	0	RLL3 (Ohm-m)	50
0	RWA (Ohm-m)	1	0	RILD (Ohm-m)	50
			50	RILD X10 (Ohm-m)	500
			50	RLL3 X10 (Ohm-m)	500







1000

1050

1100

1150

1200

1250

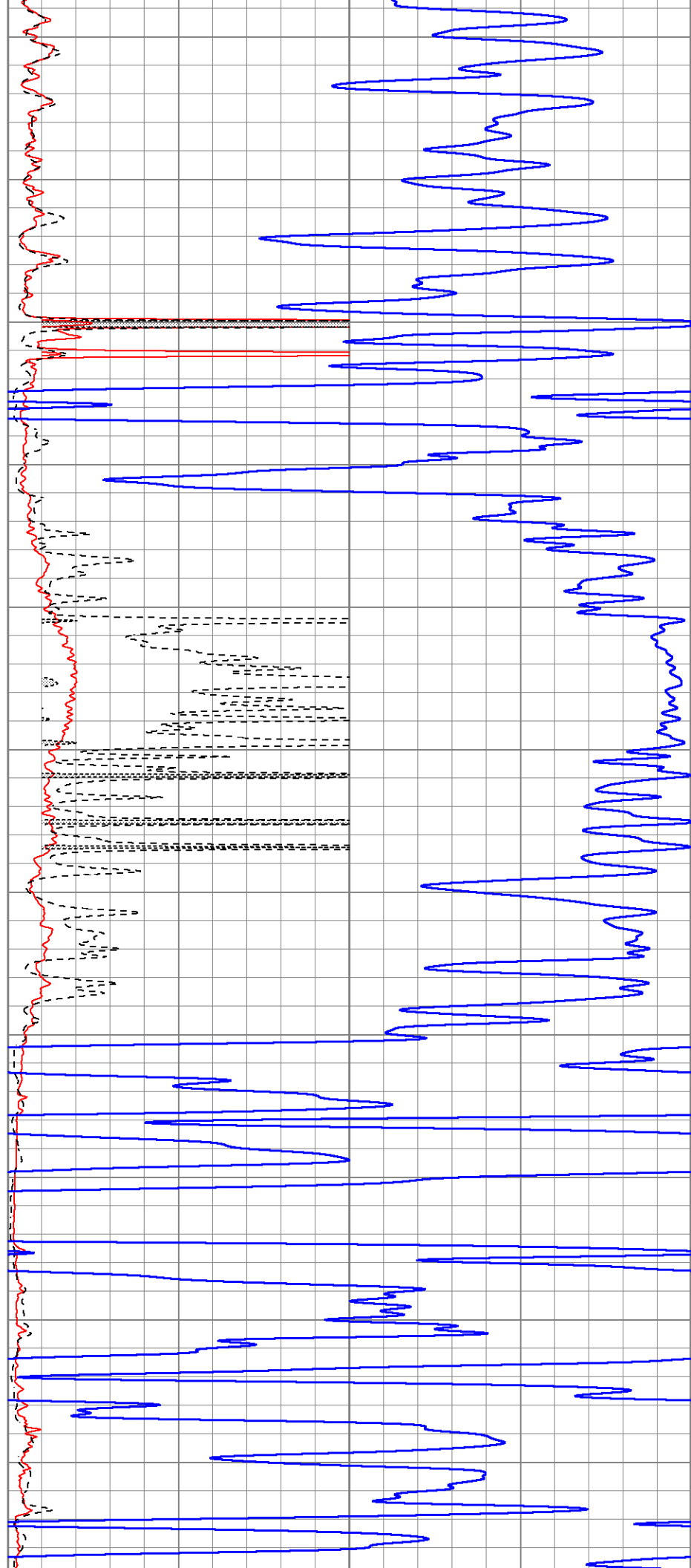
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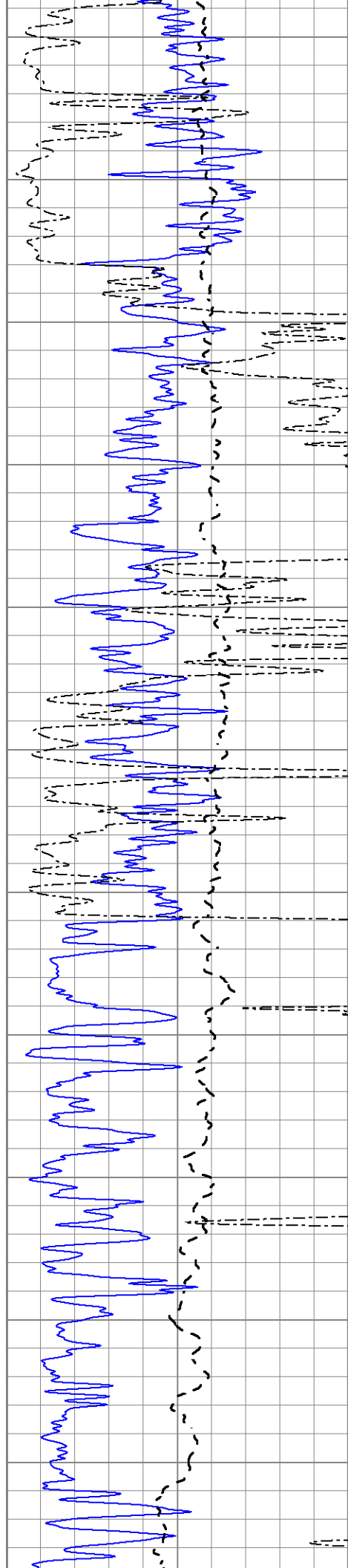
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1450

1500





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1600

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1700

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1800

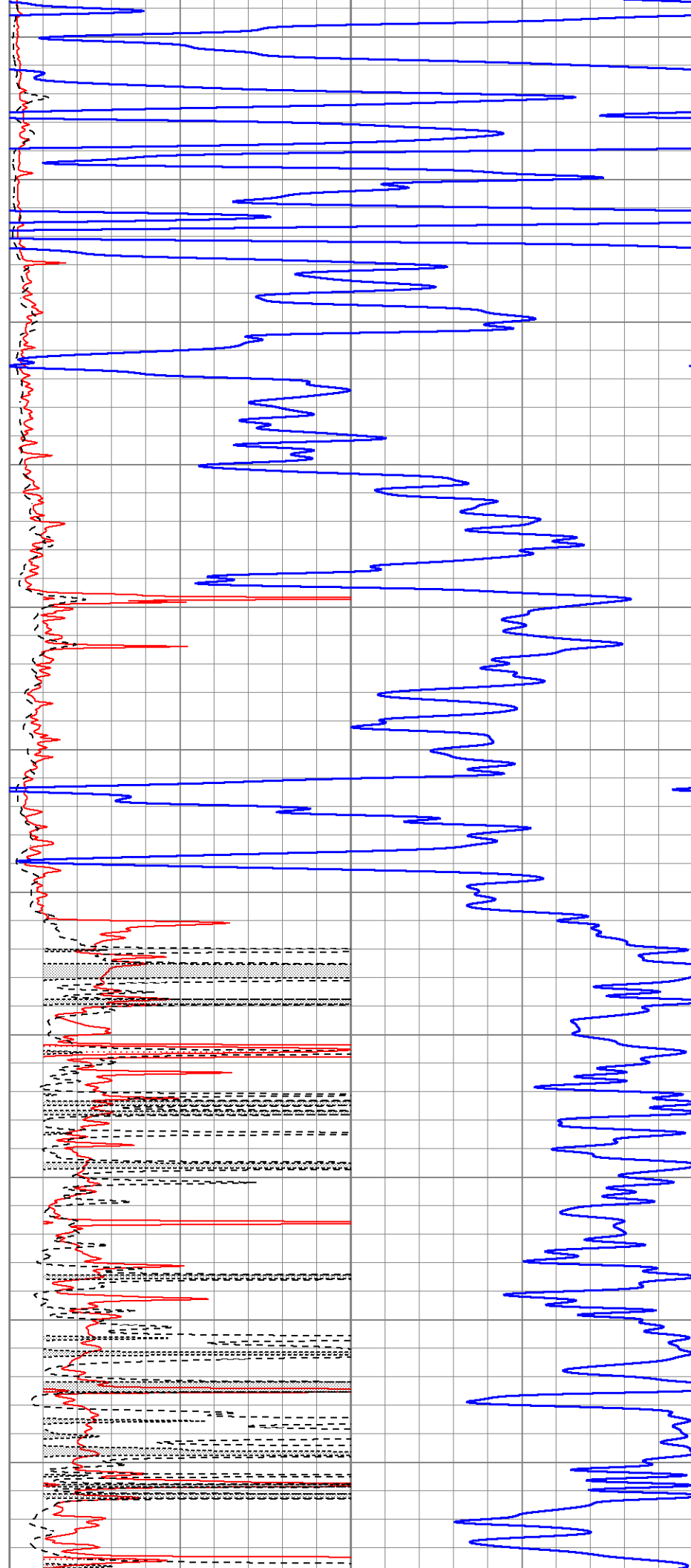
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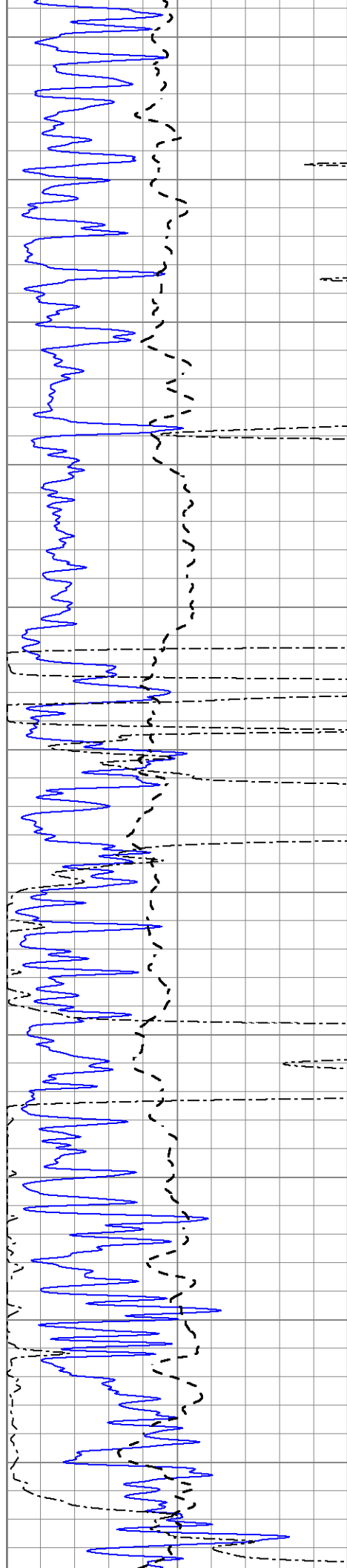
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1950

2000

2050





2100

2150

2200

2250

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2350

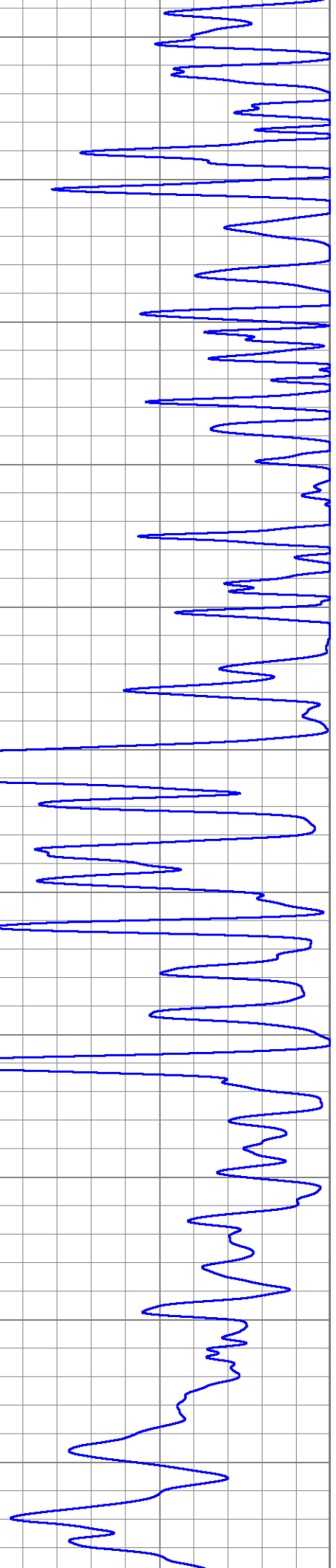
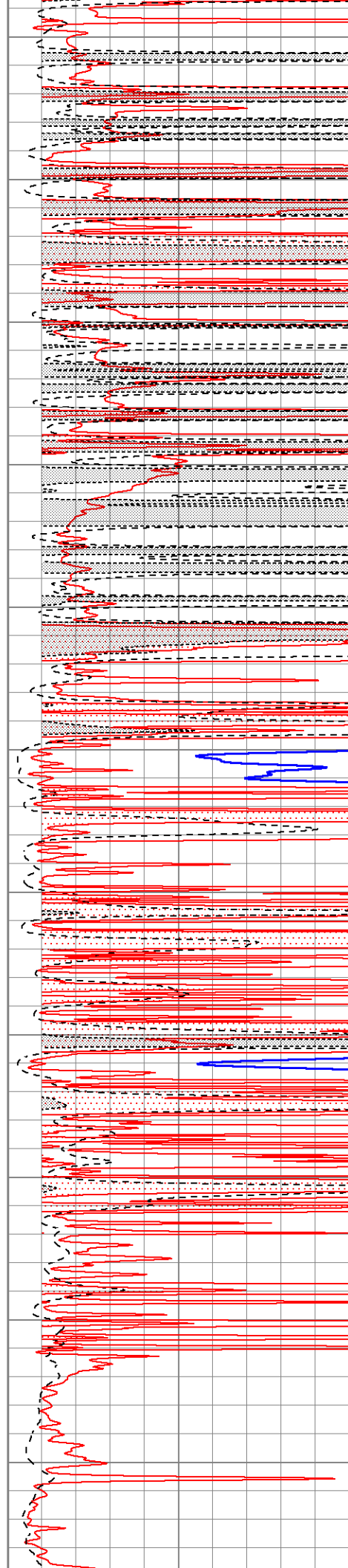
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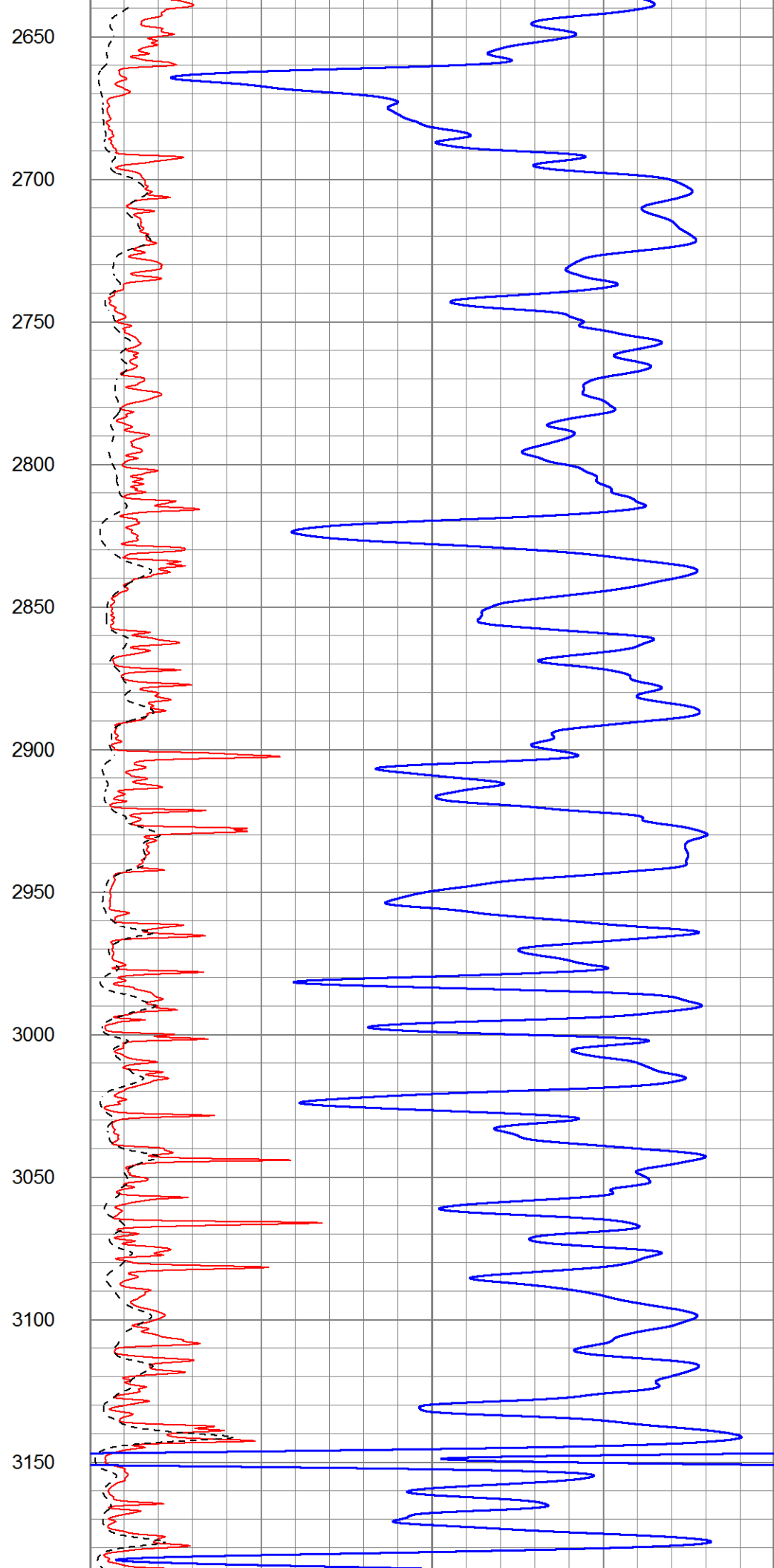
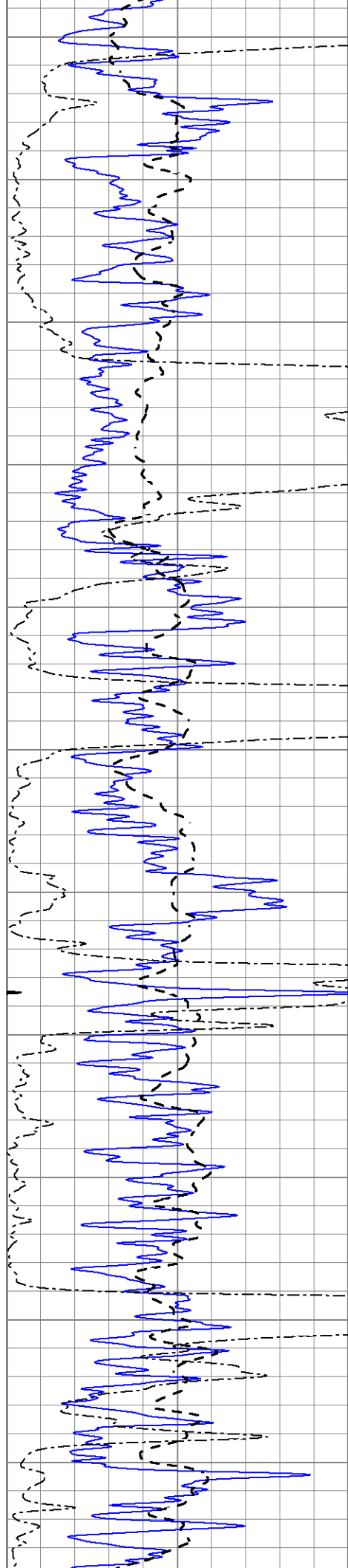
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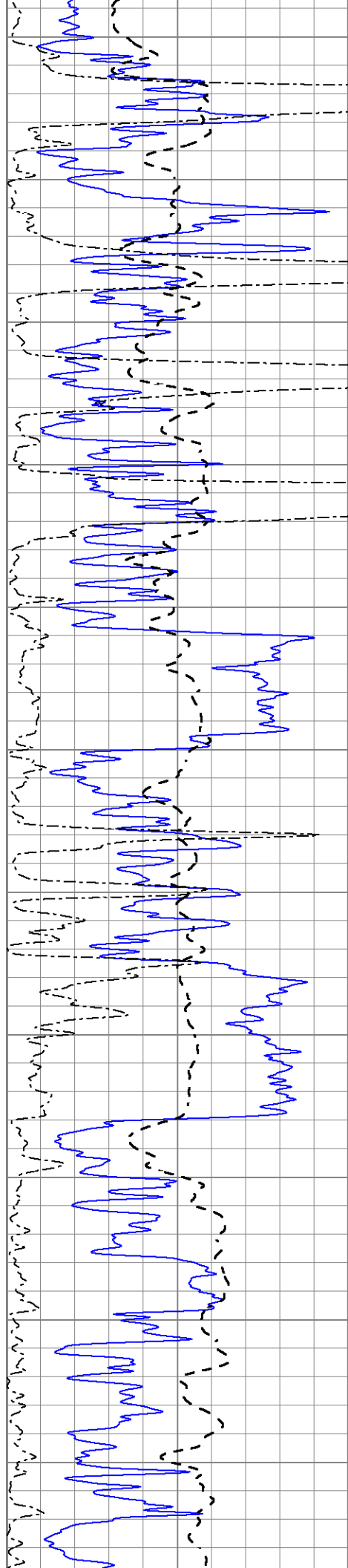
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2600







3200

3250

3300

3350

3400

3450

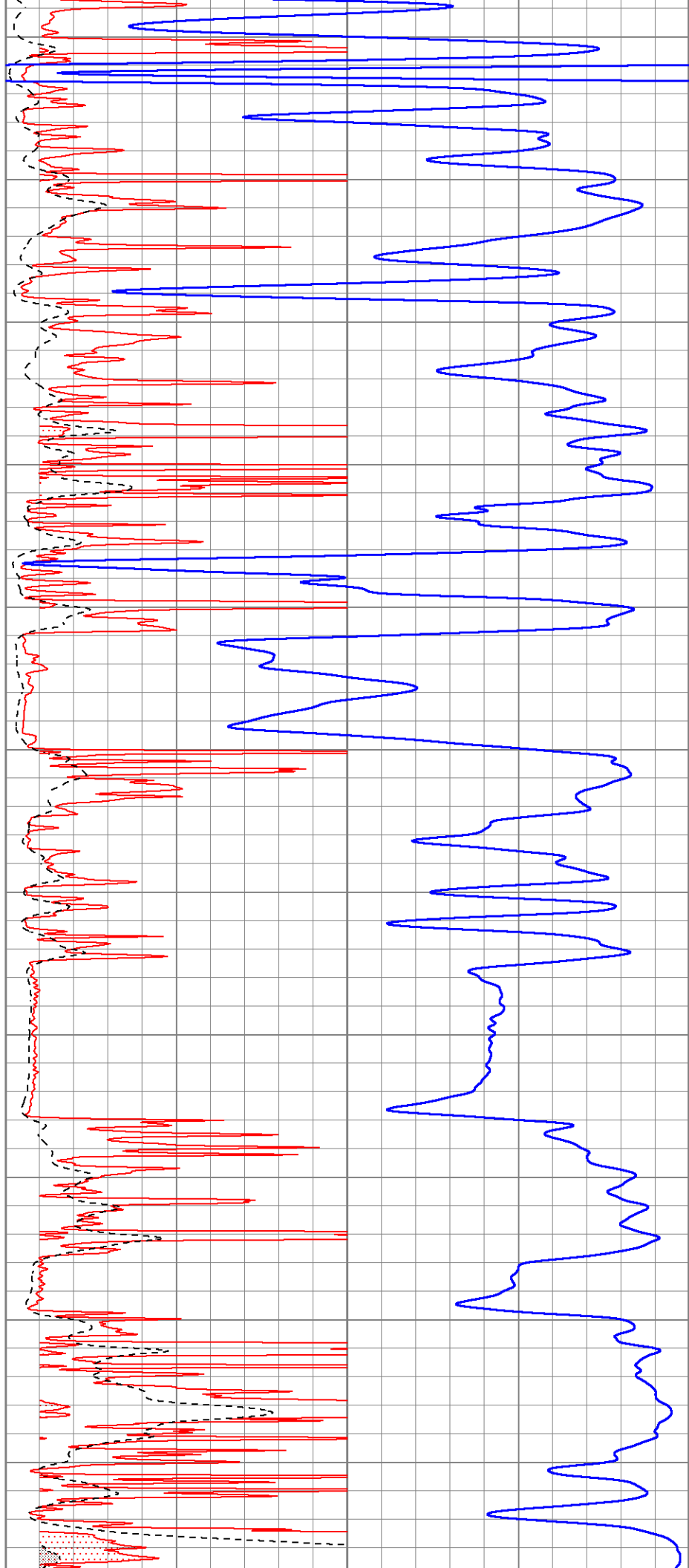
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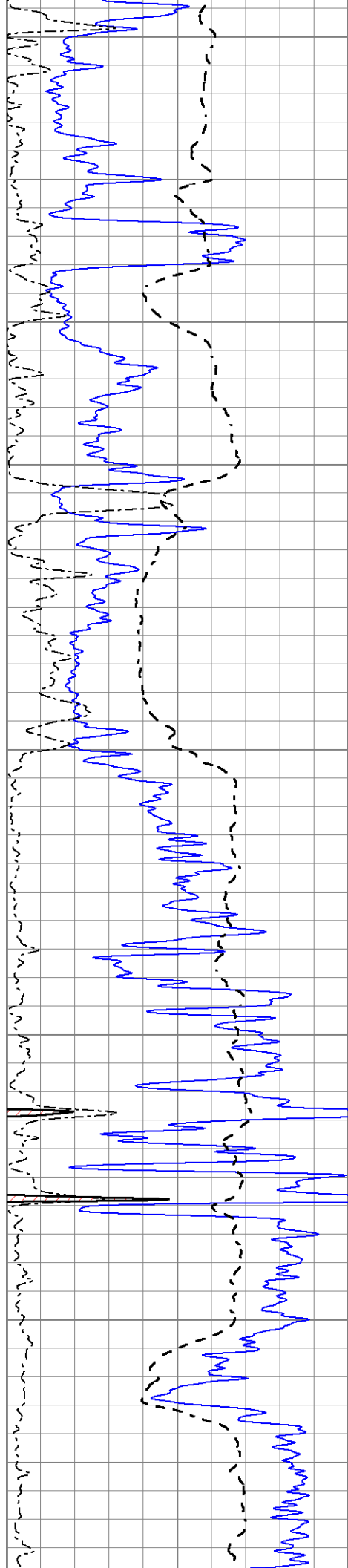
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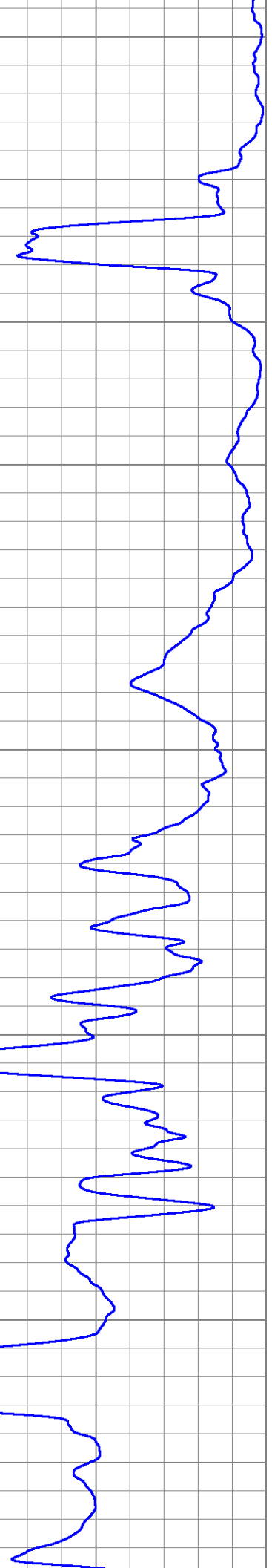
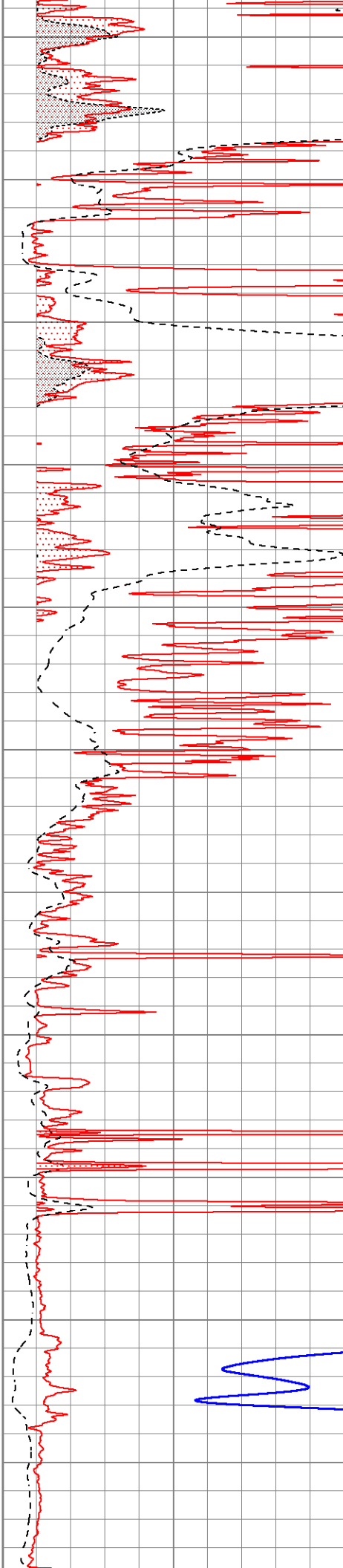
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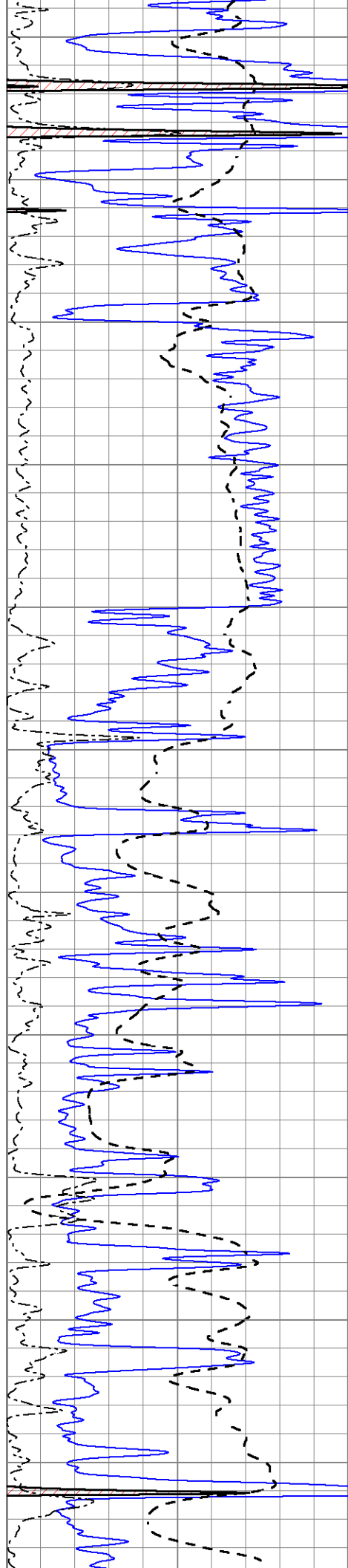
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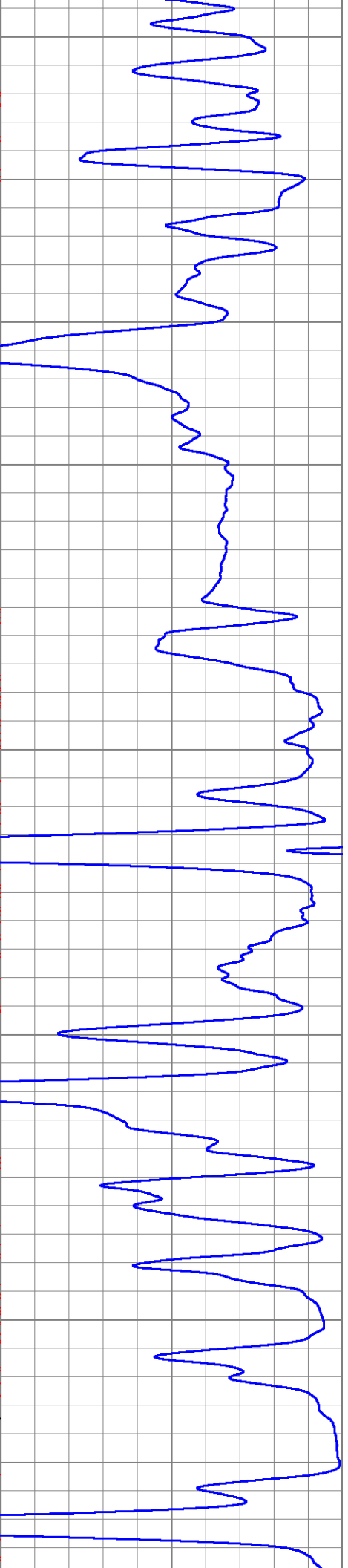
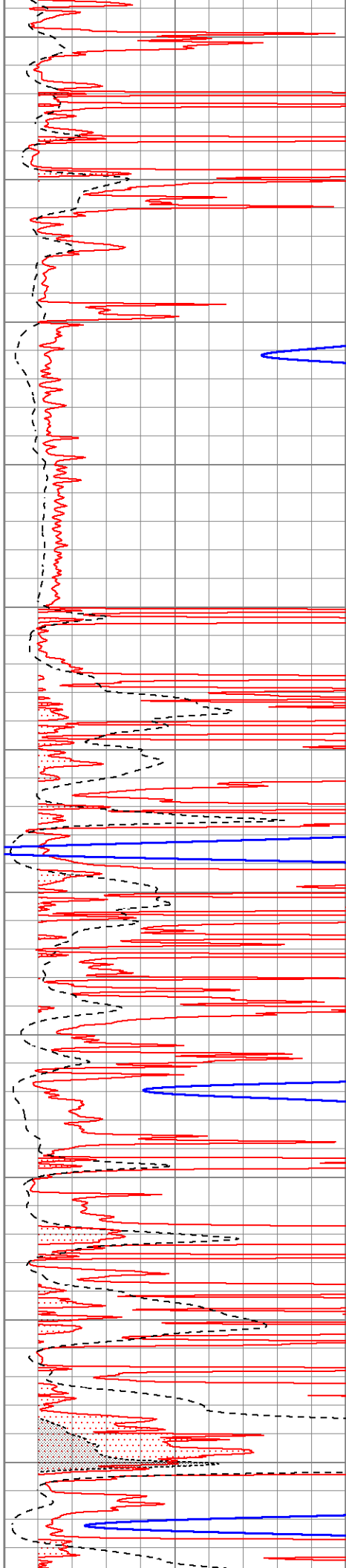
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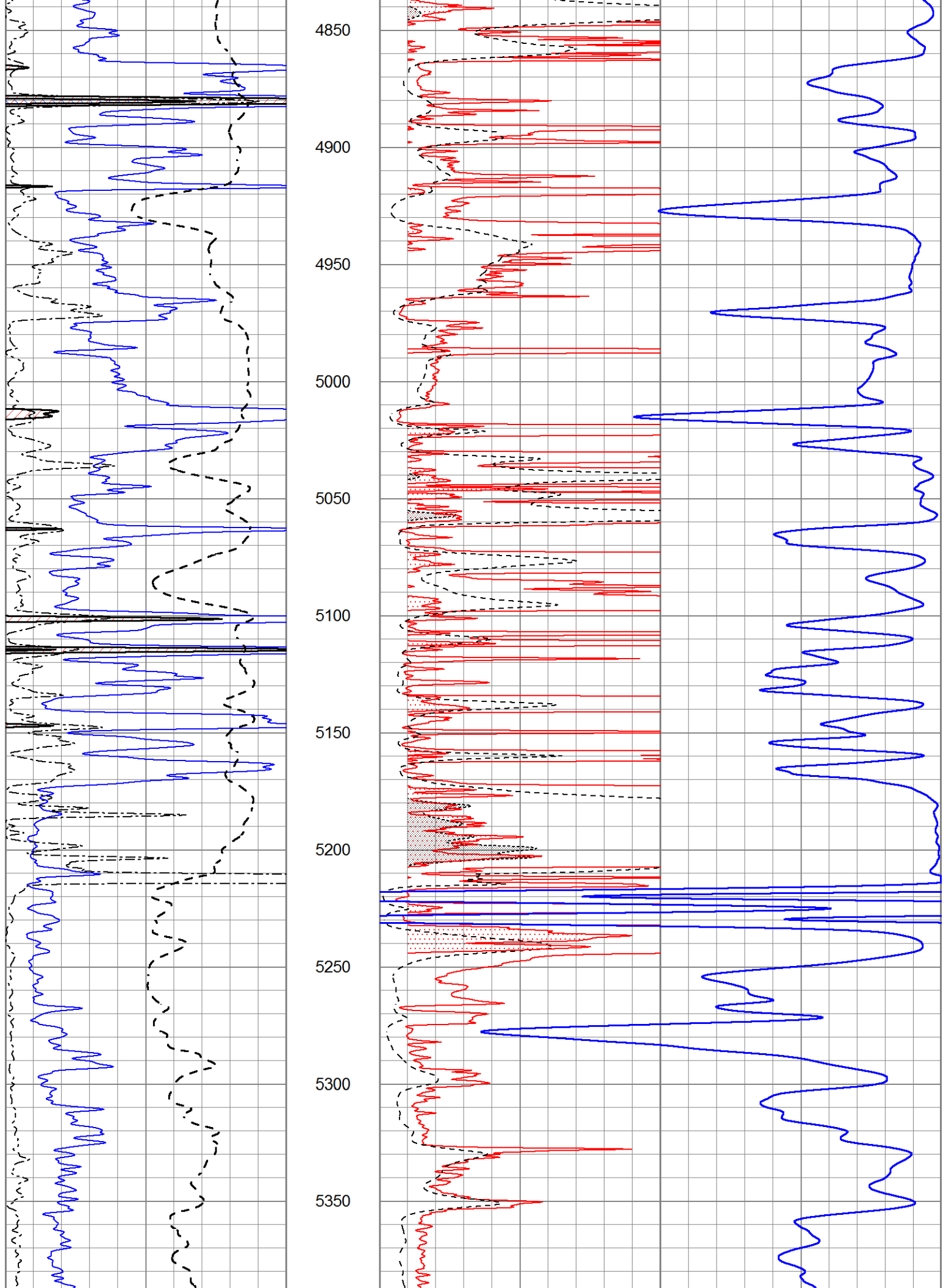
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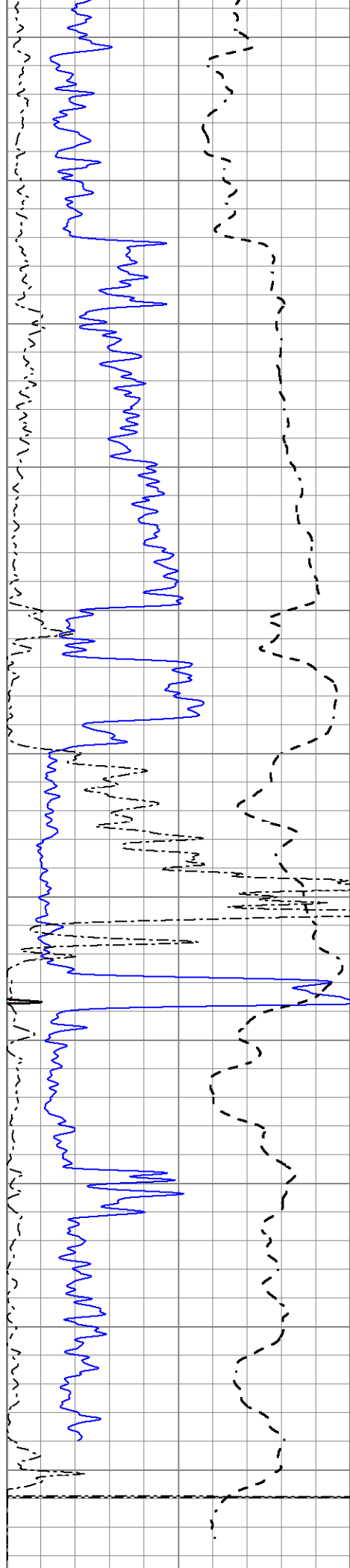
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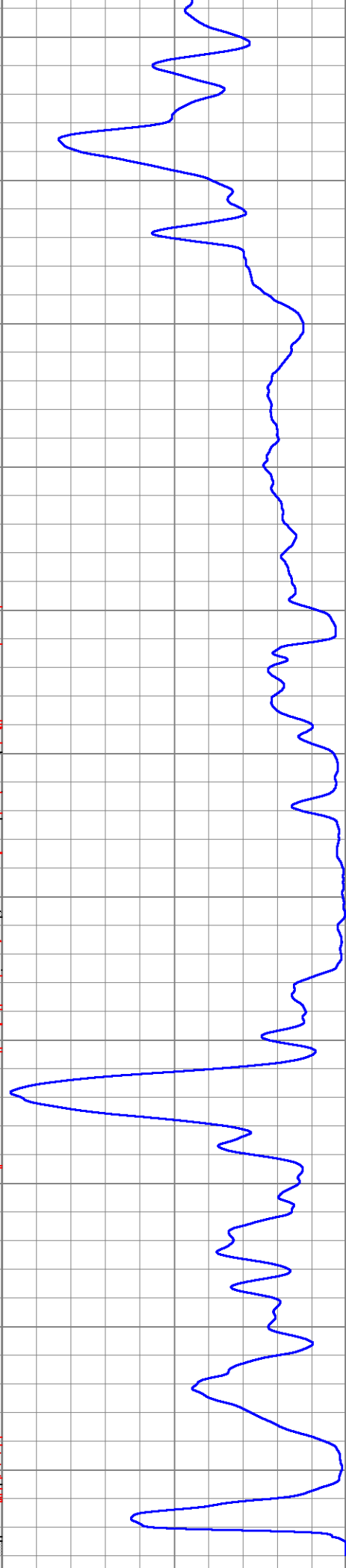
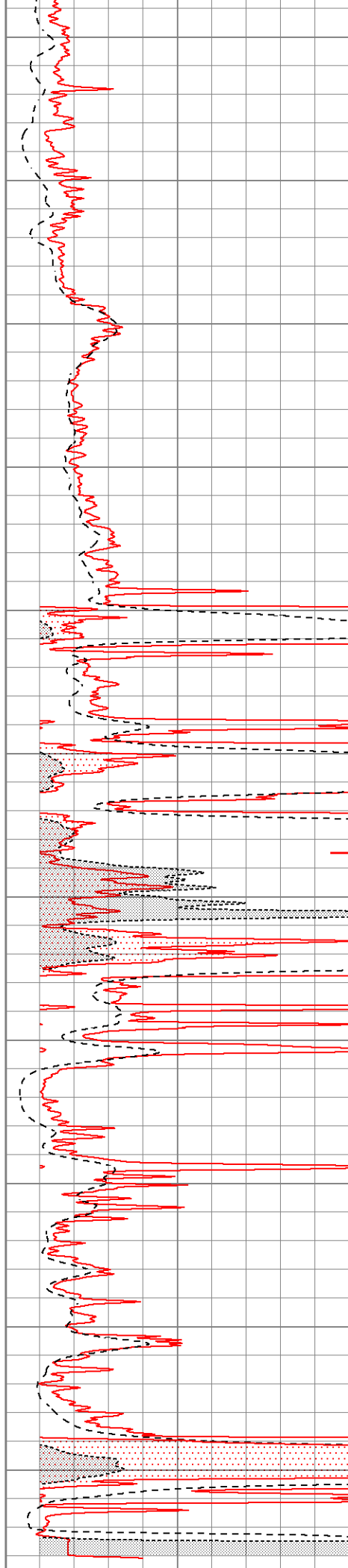
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5400
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5700
5750
5800
5850
5900



0	Gamma Ray (GAPI)	150
-100	SP (mV)	100
0	RWA (Ohm-m)	1

1000	CILD (mmho/m)	0
0	RLL3 (Ohm-m)	50
0	RILD (Ohm-m)	50
50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500

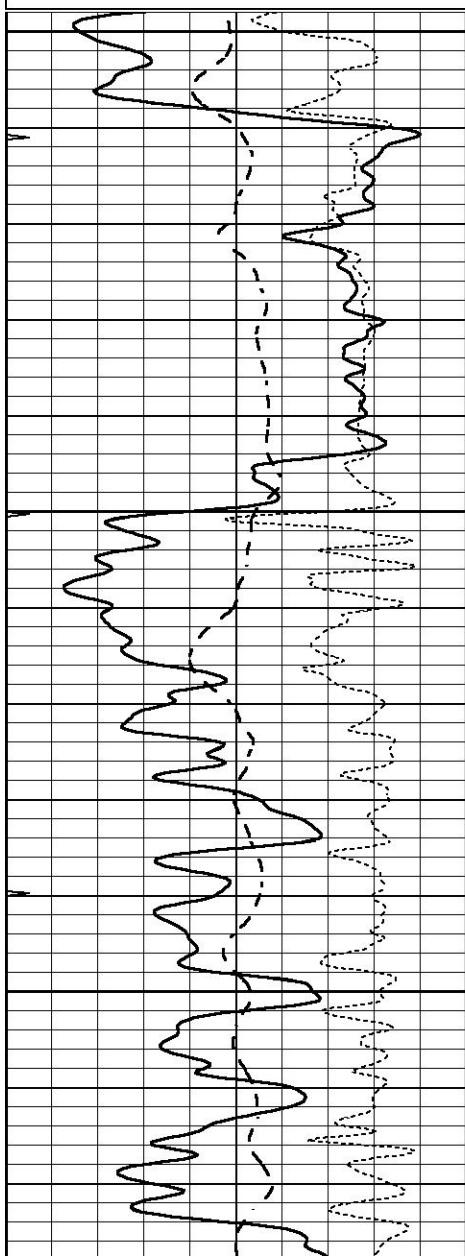


MAIN SECTION

Database File 6917pe.db
 Dataset Pathname pass3.1M
 Presentation Format _dil
 Dataset Creation Sat Sep 03 10:04:35 2022
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

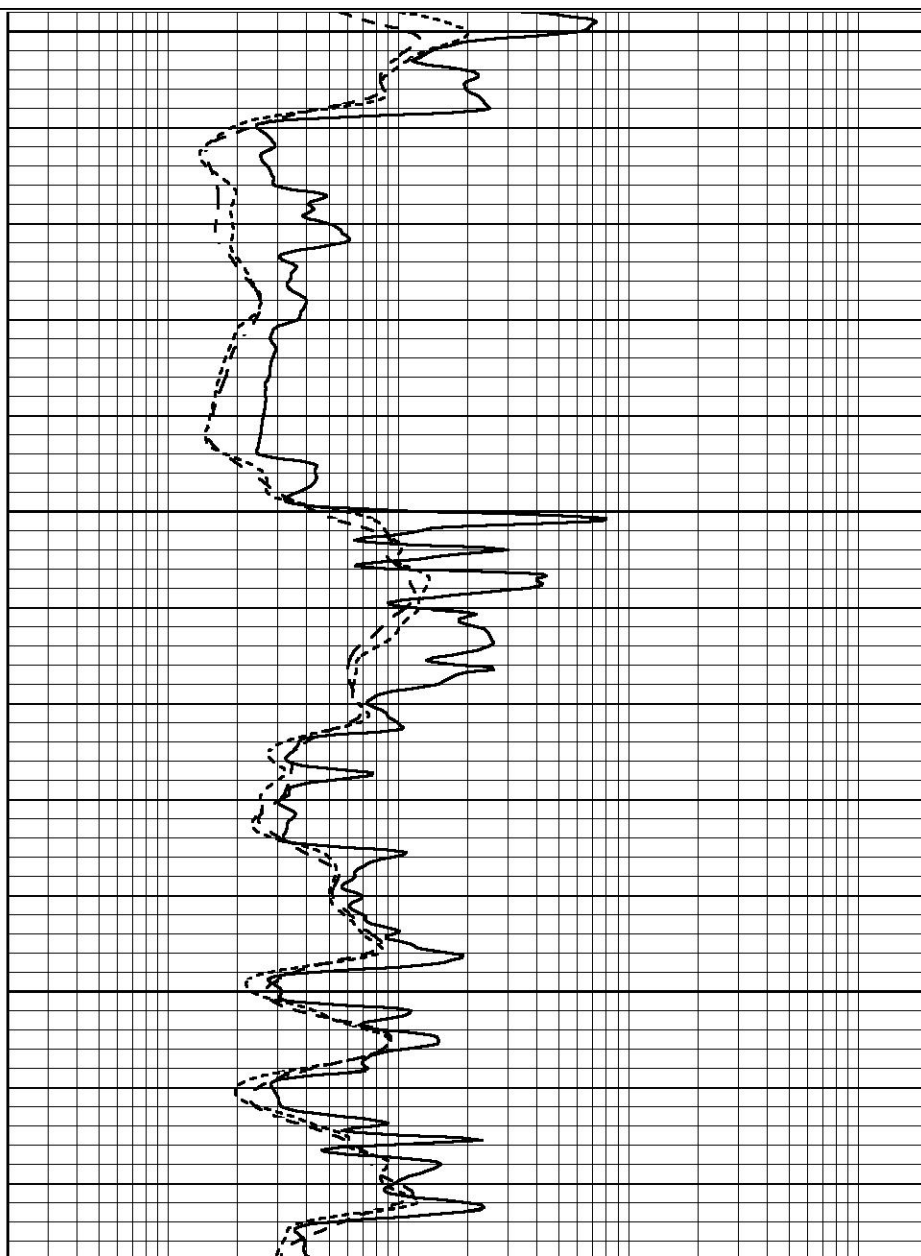
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

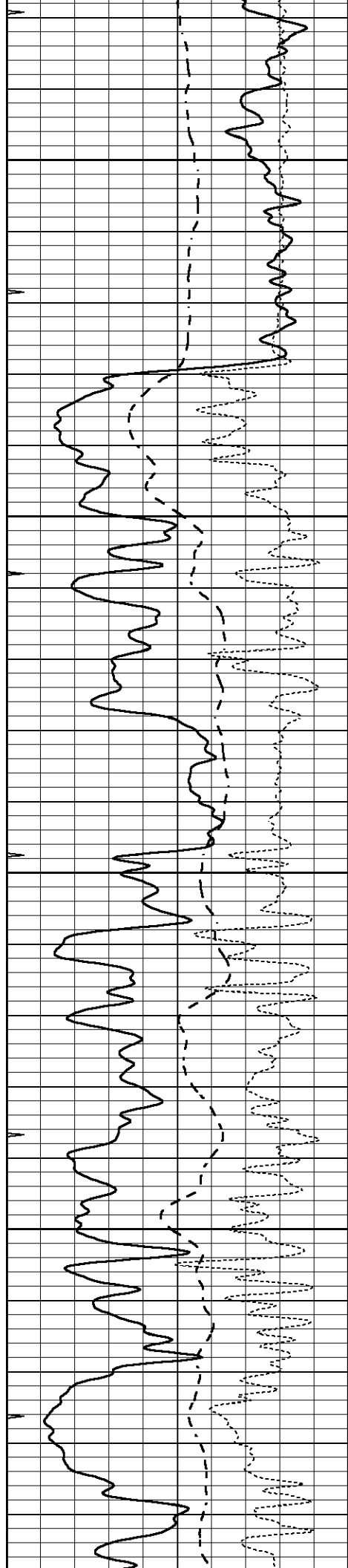


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3500



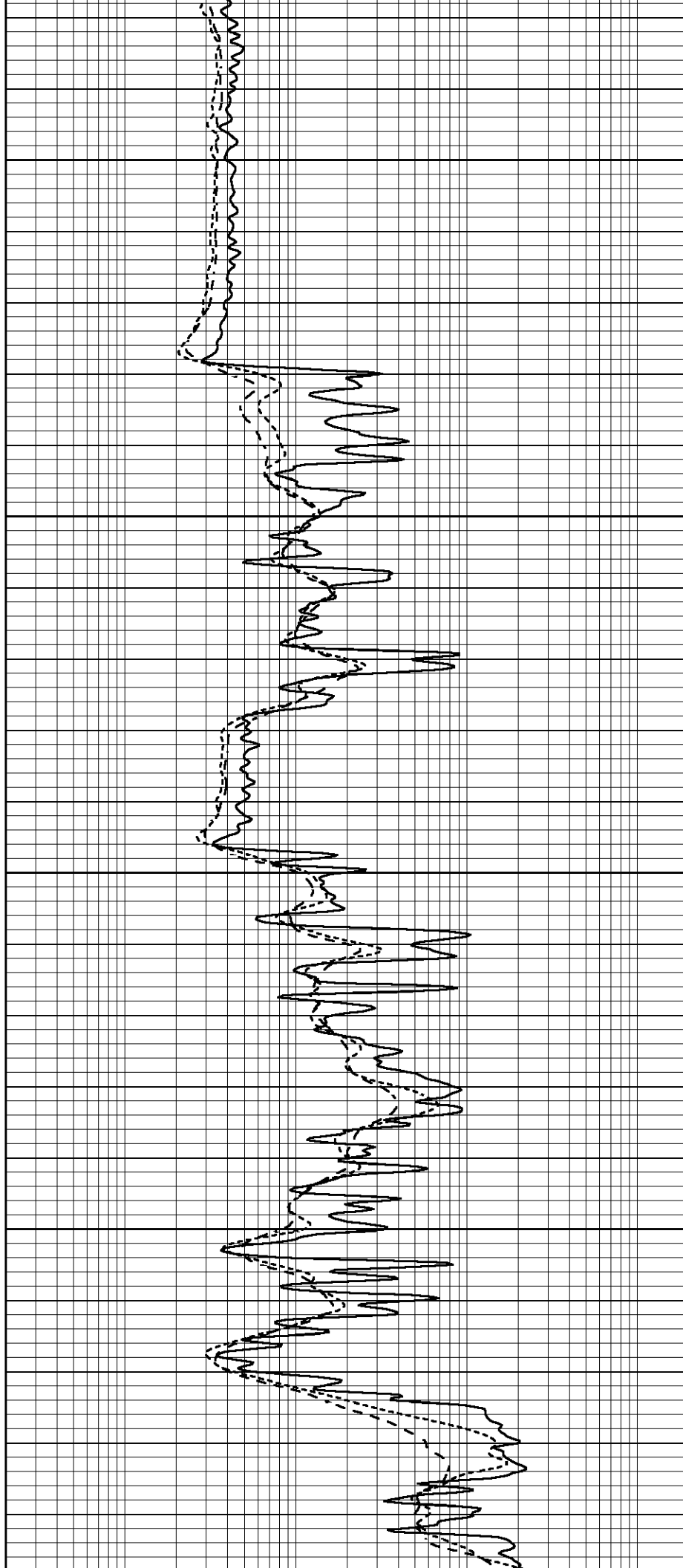


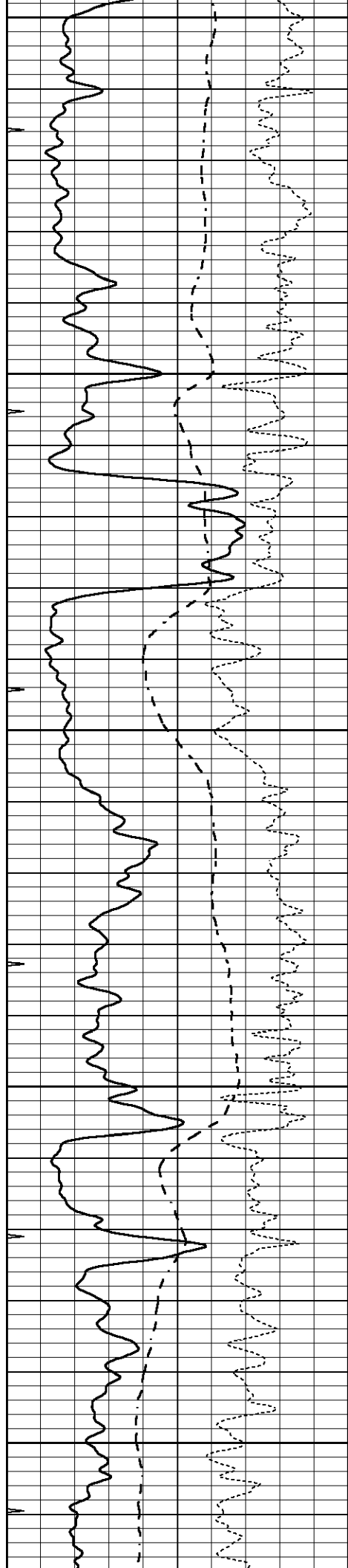
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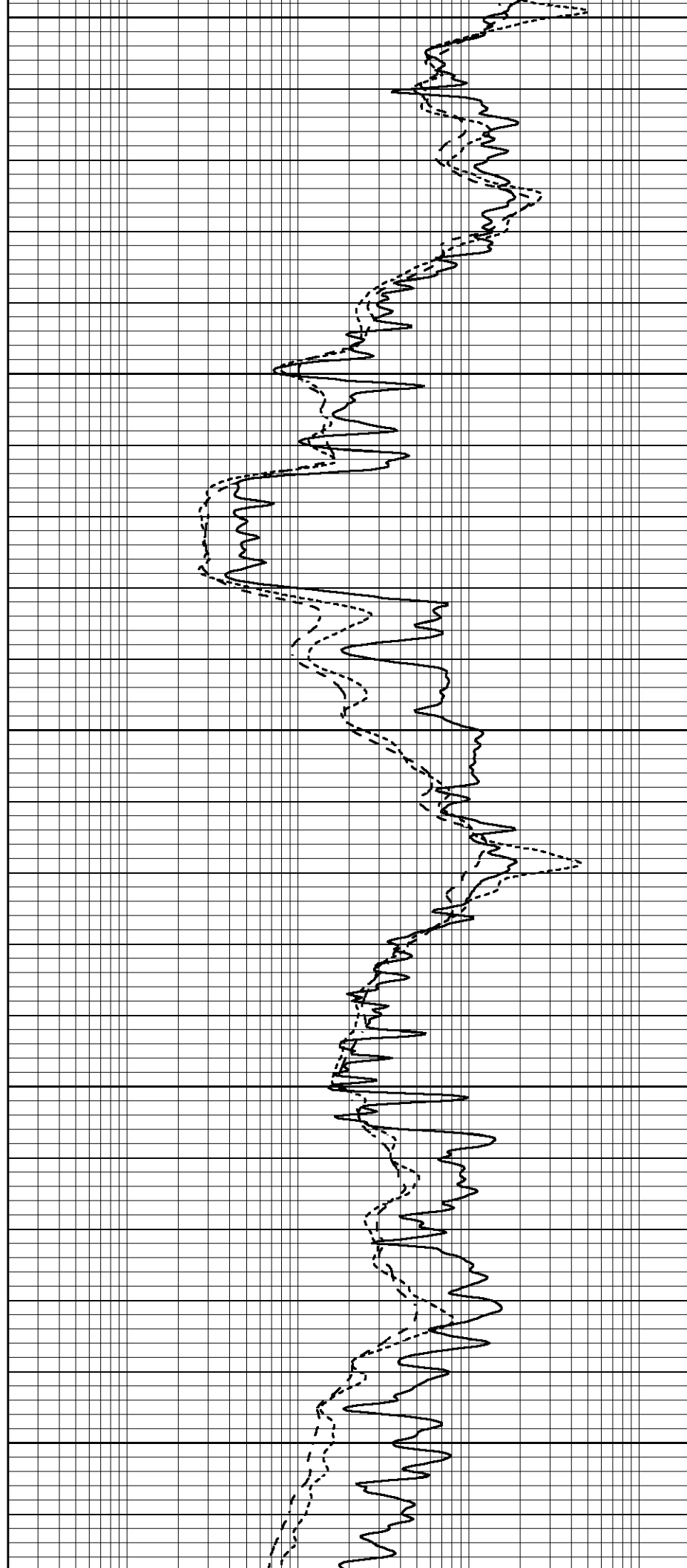
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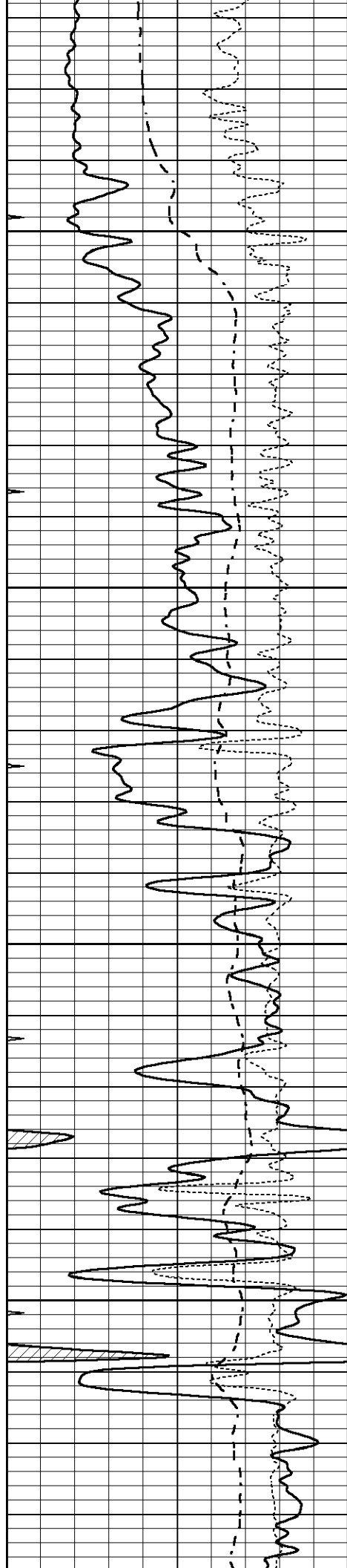
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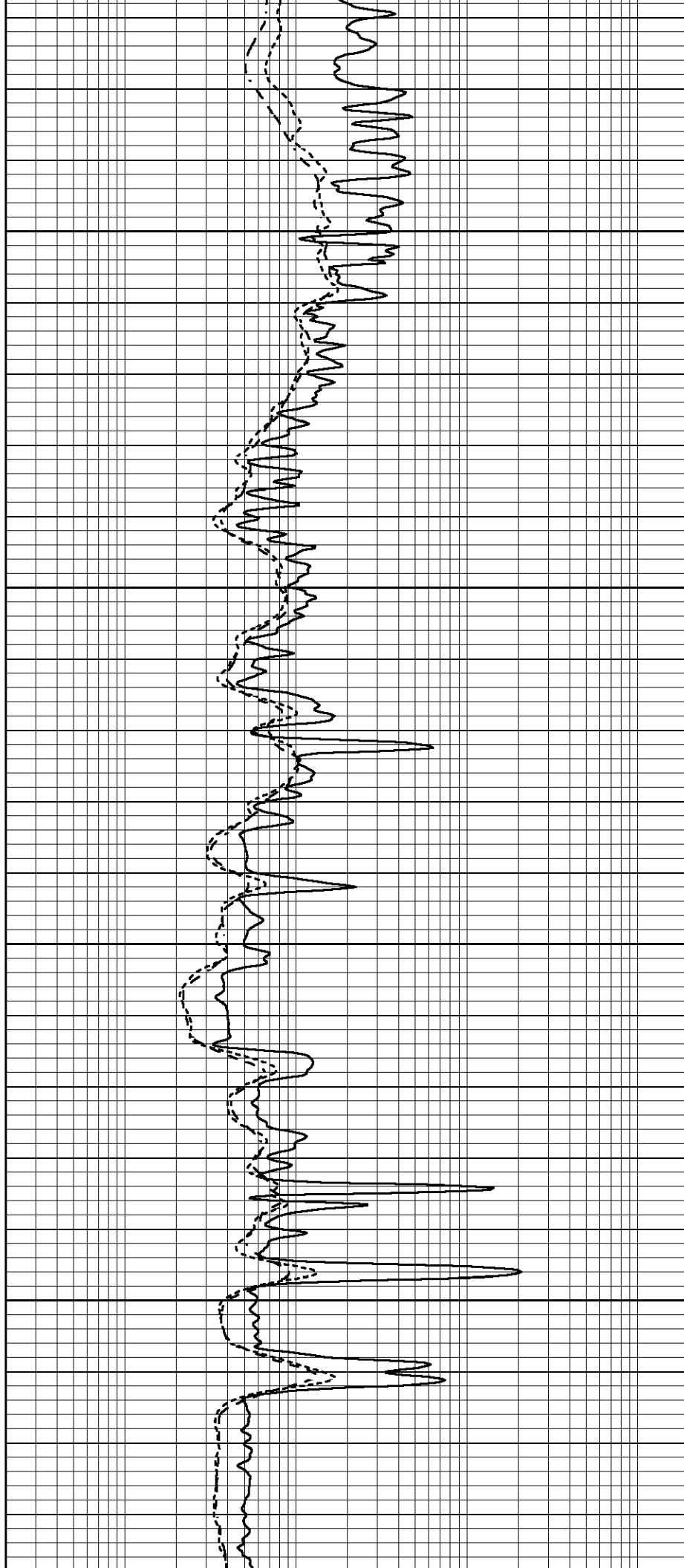


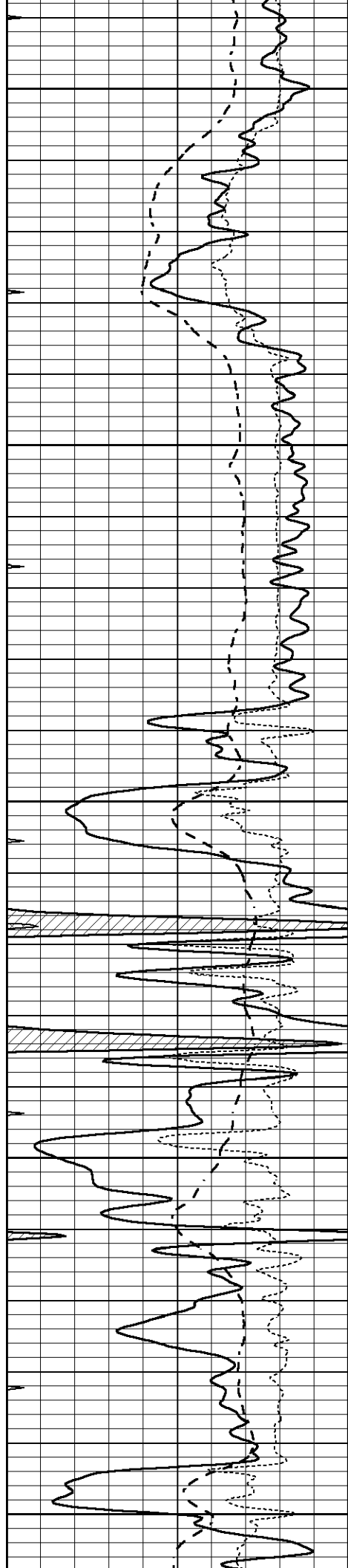
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4050

4100

4150





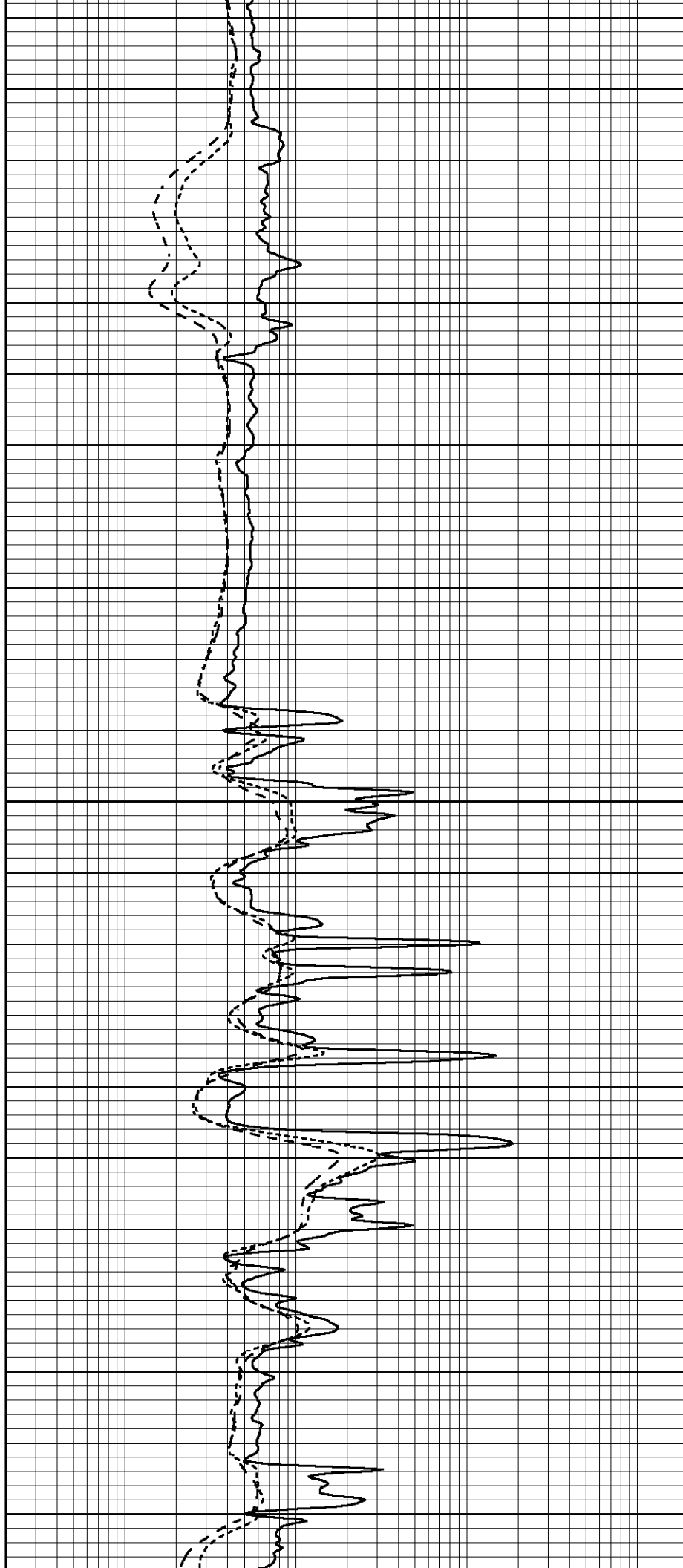
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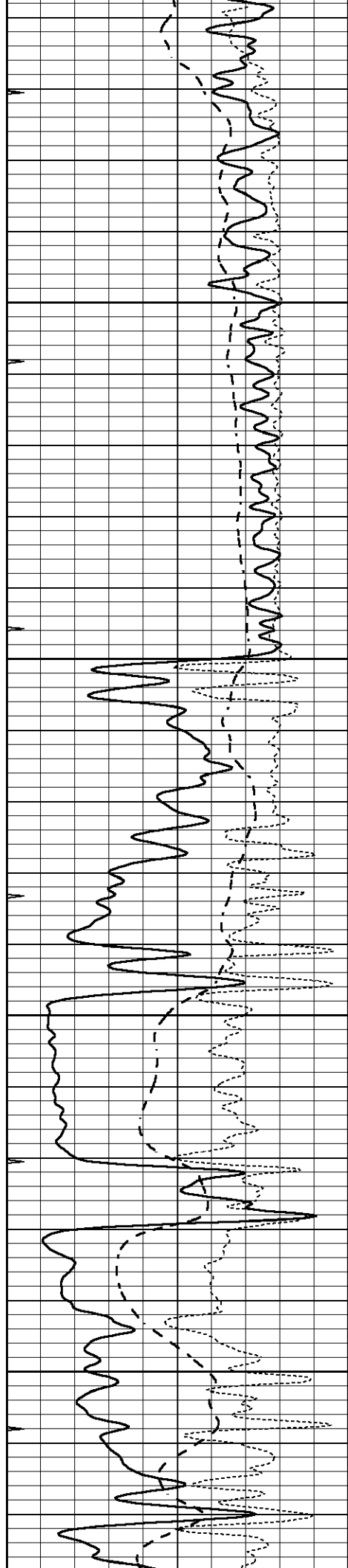
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4400



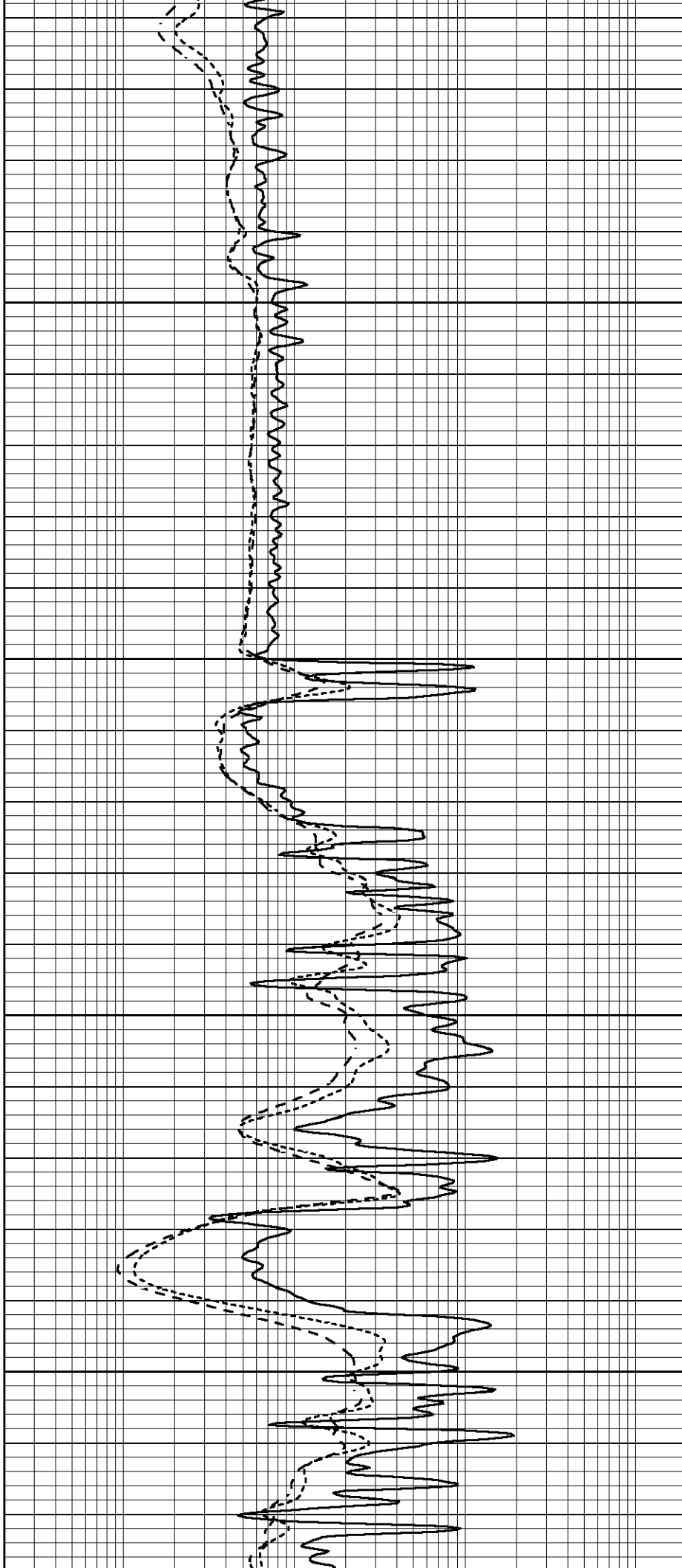


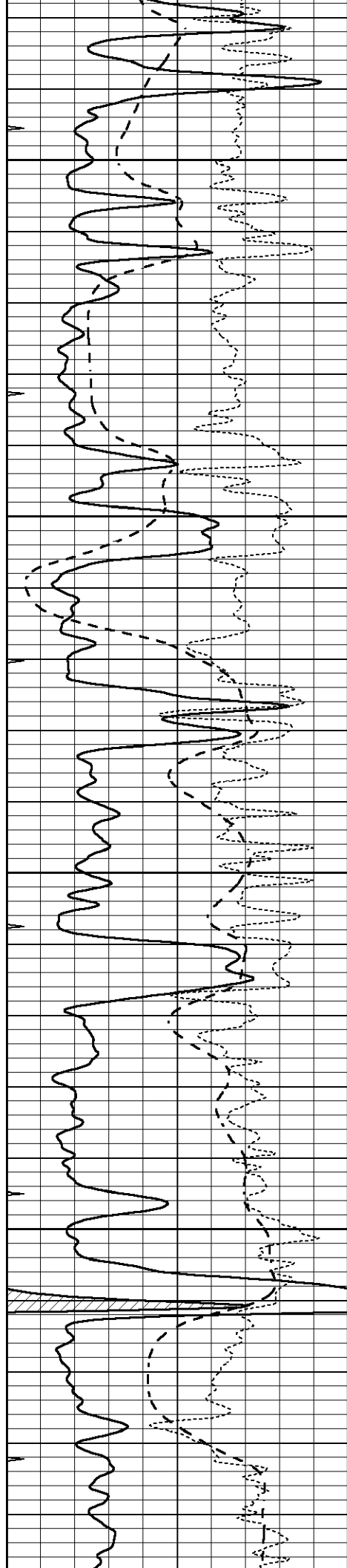
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4500

4550

4600



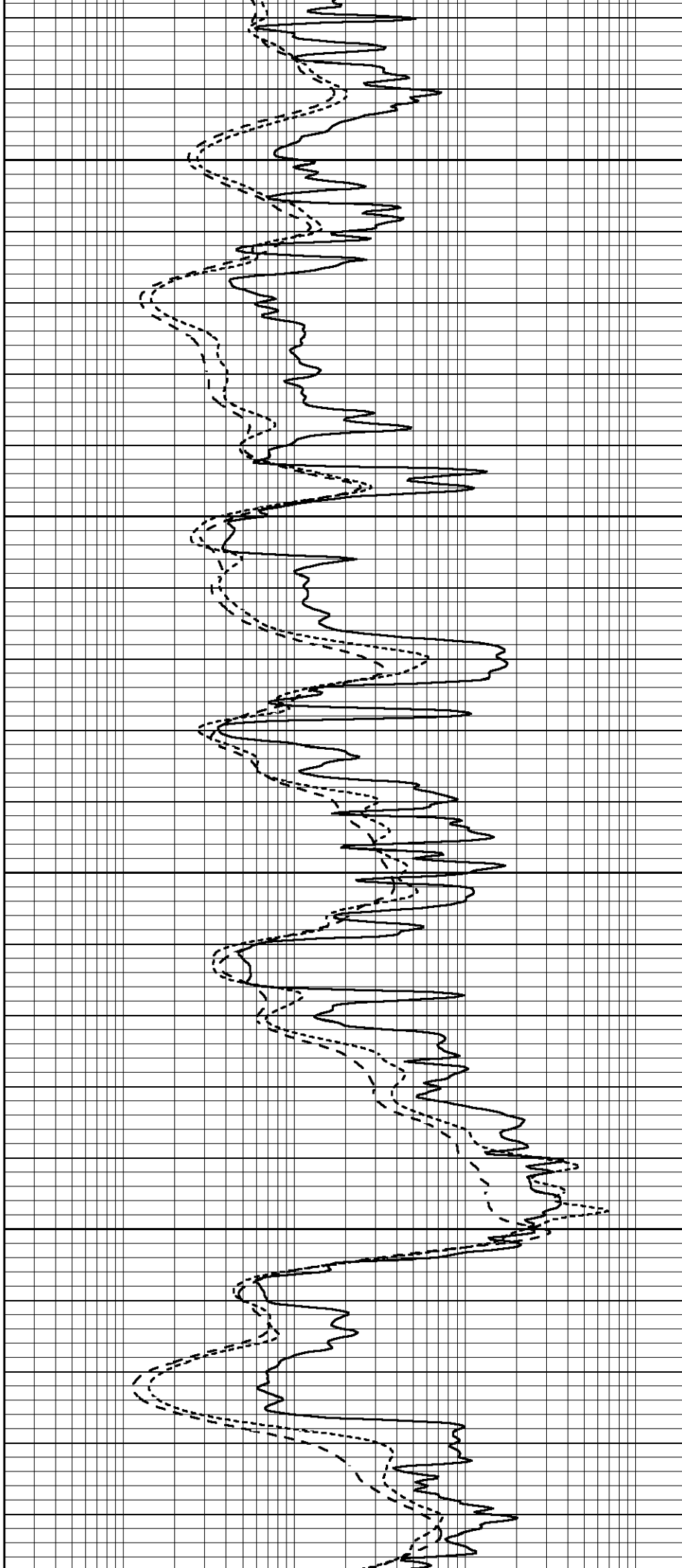


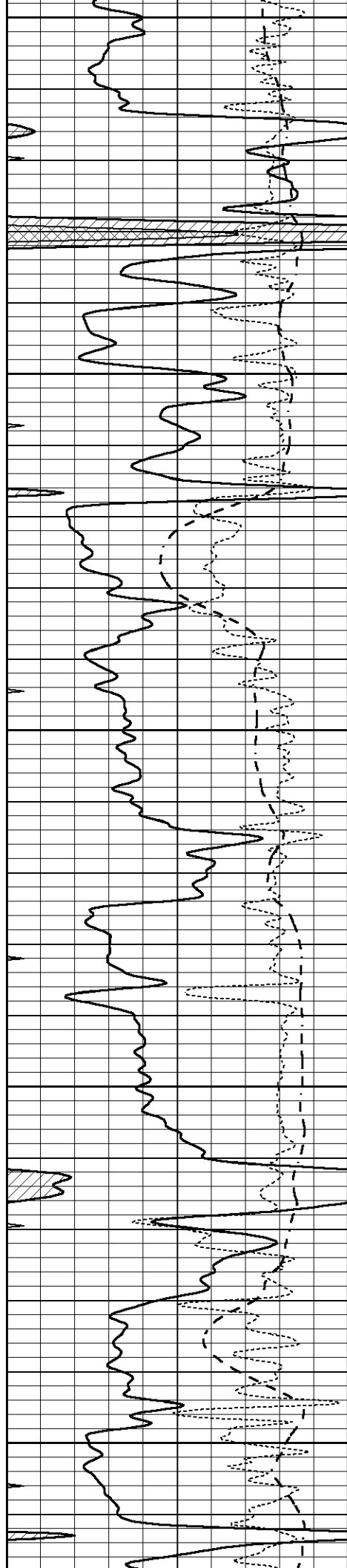
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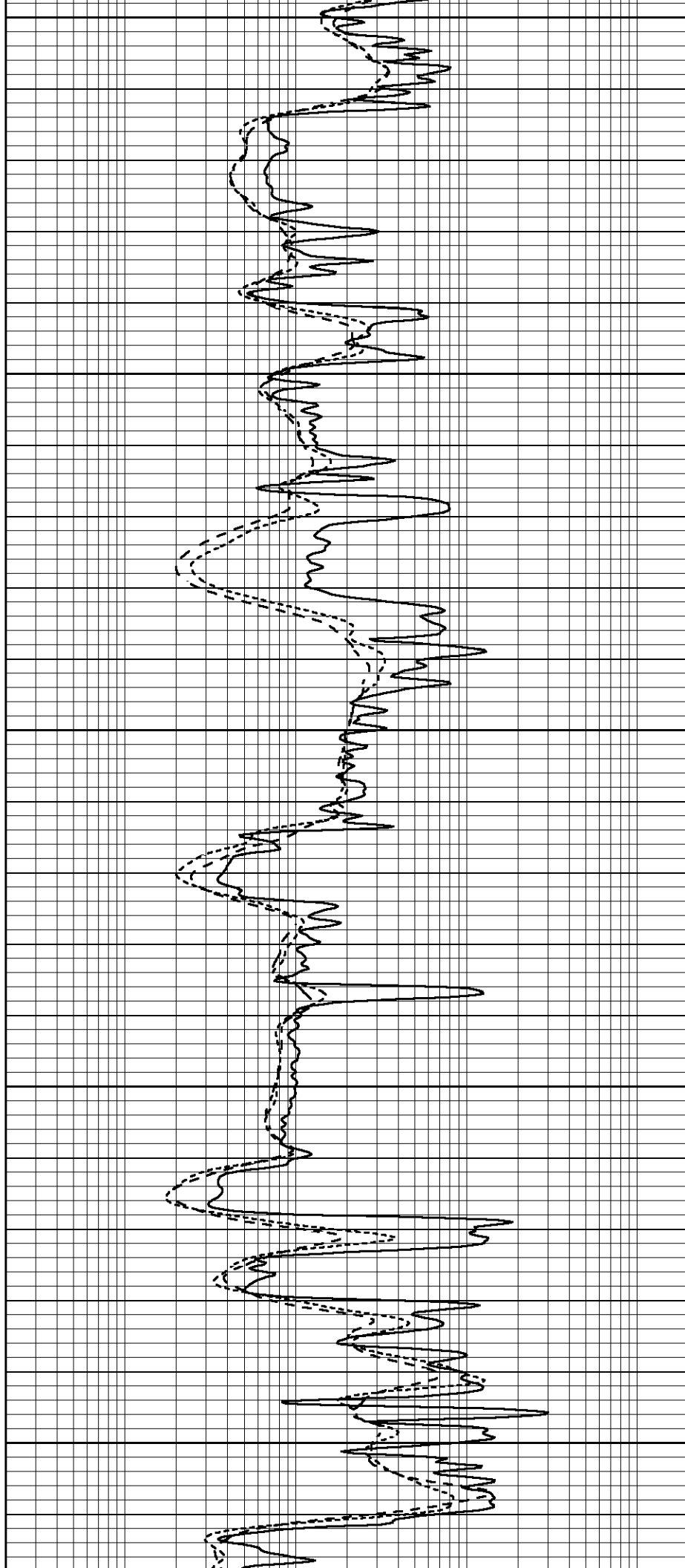
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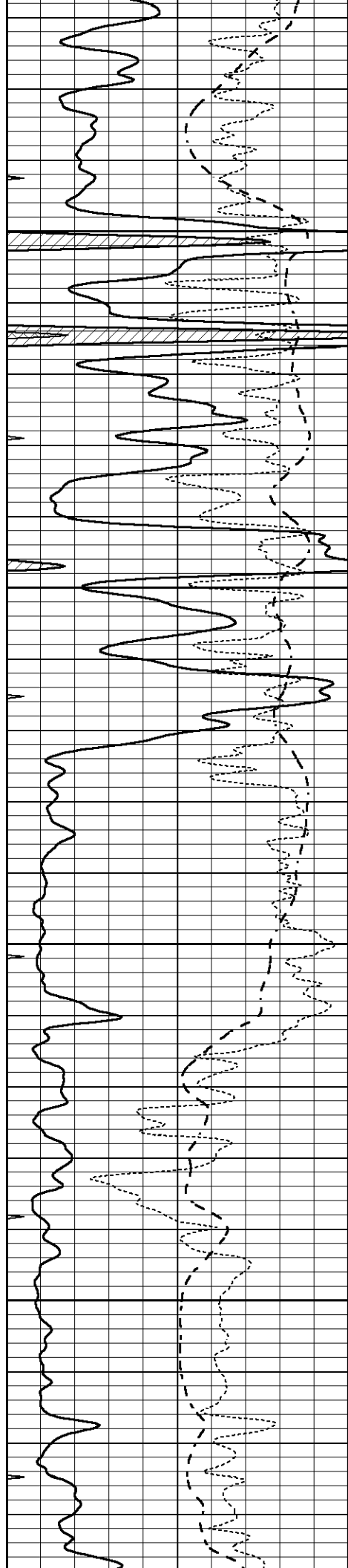
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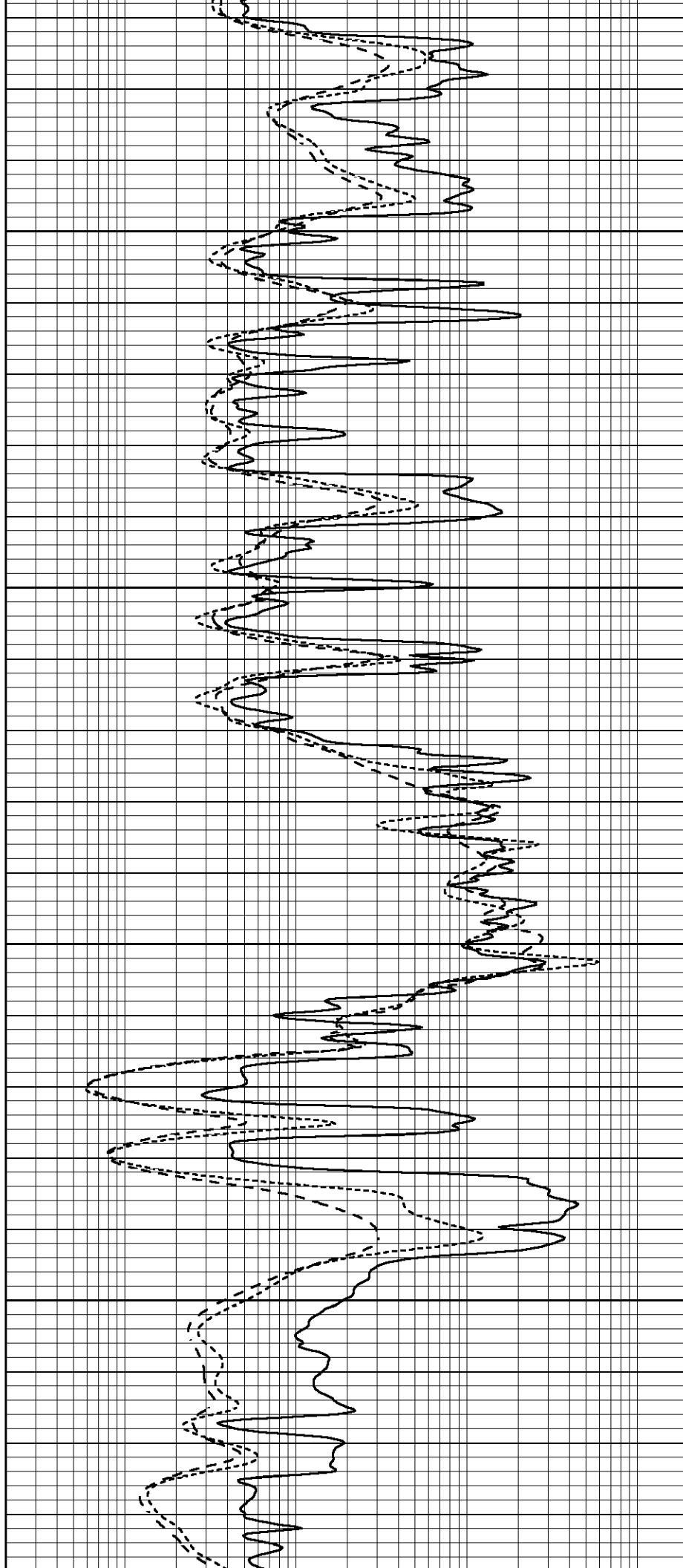


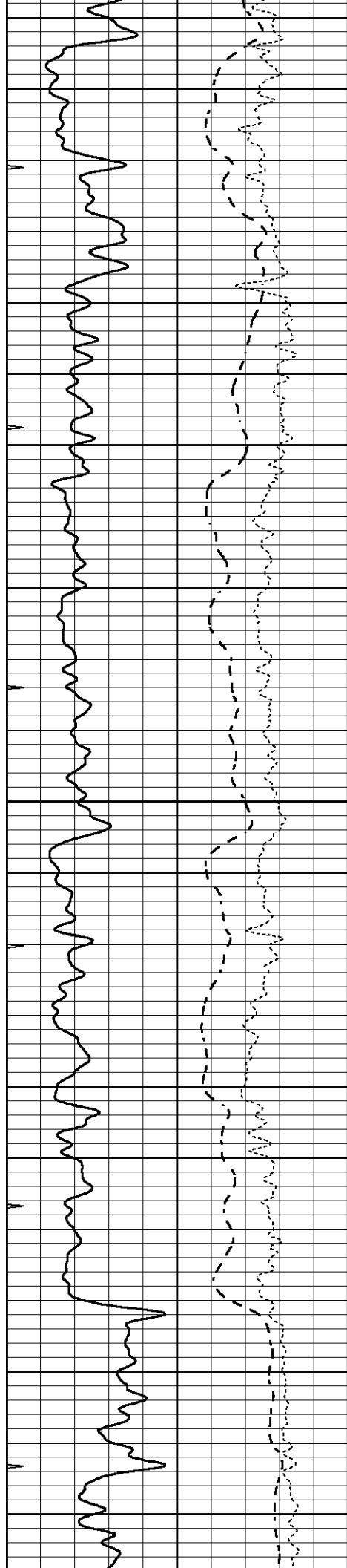
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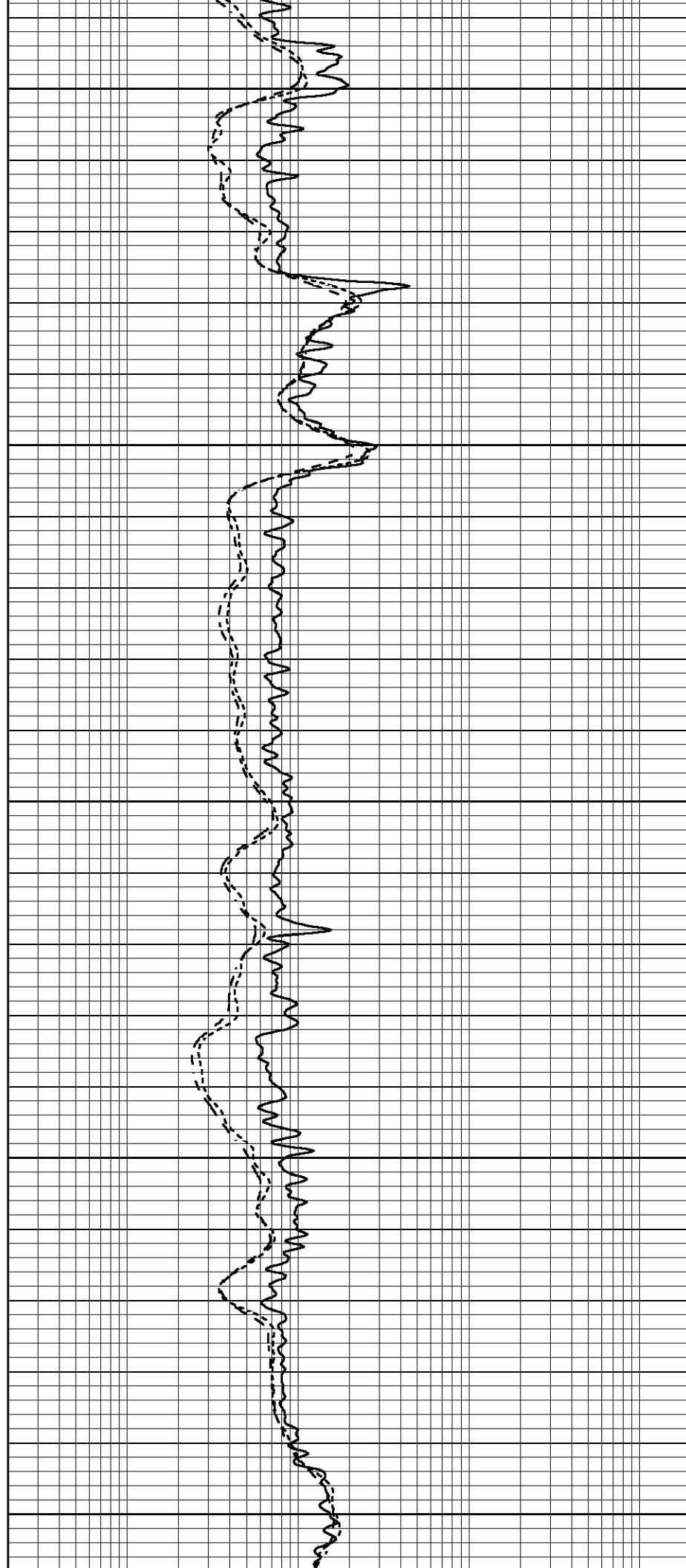
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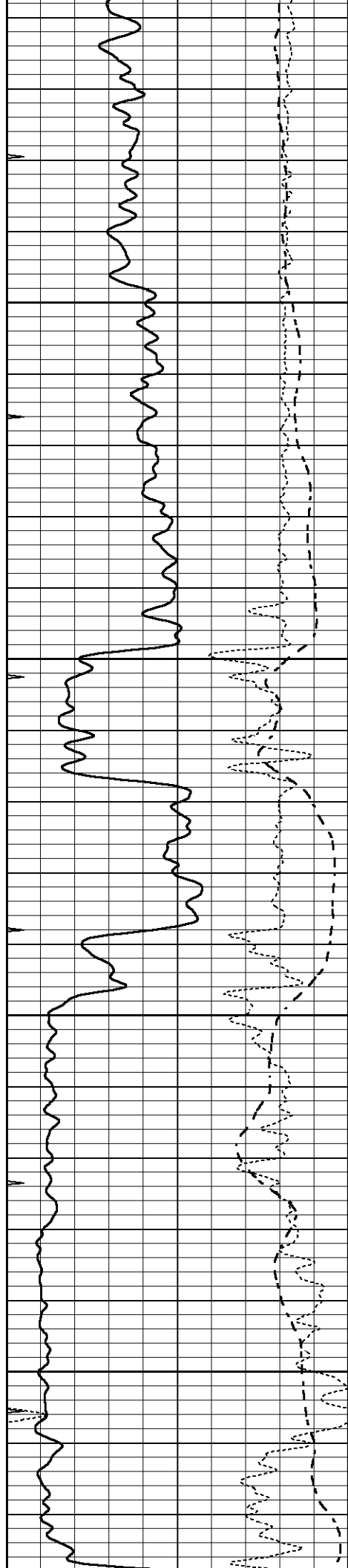
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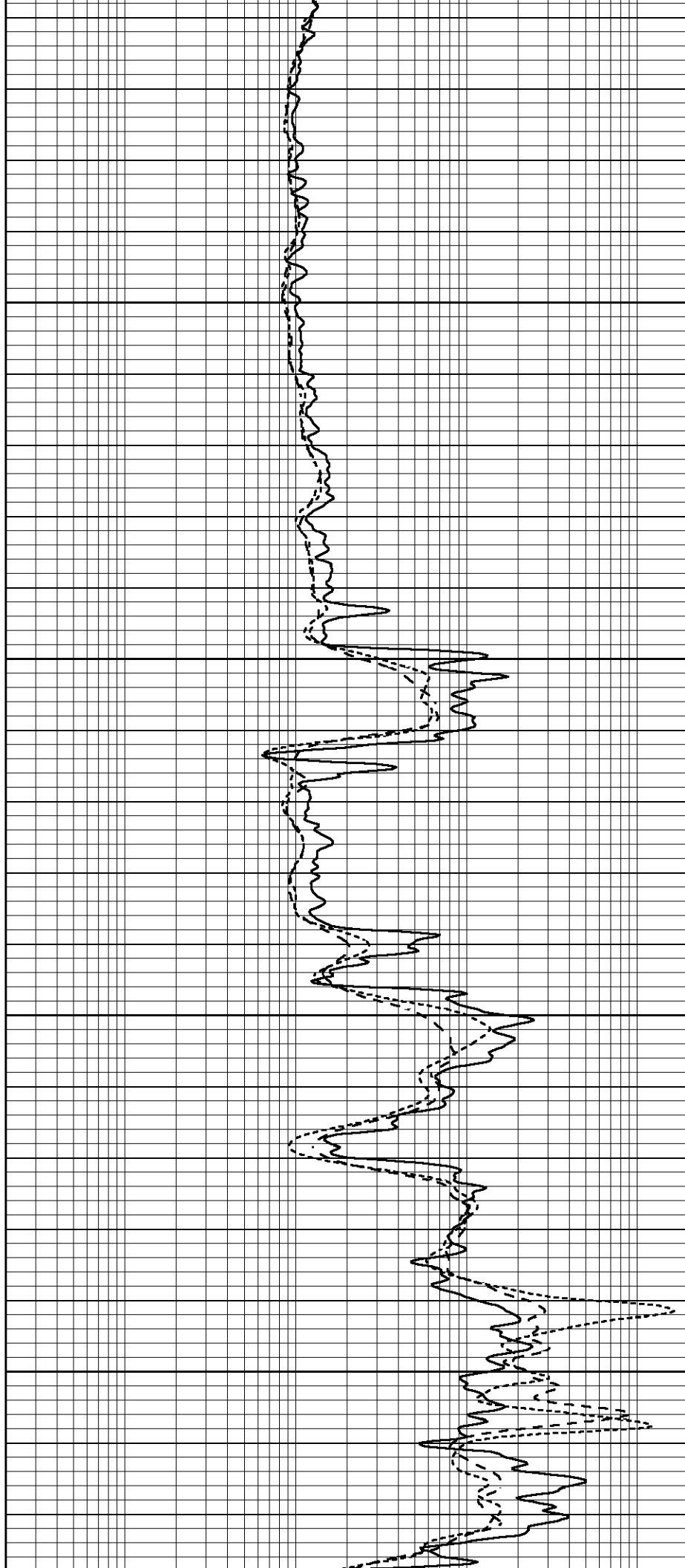


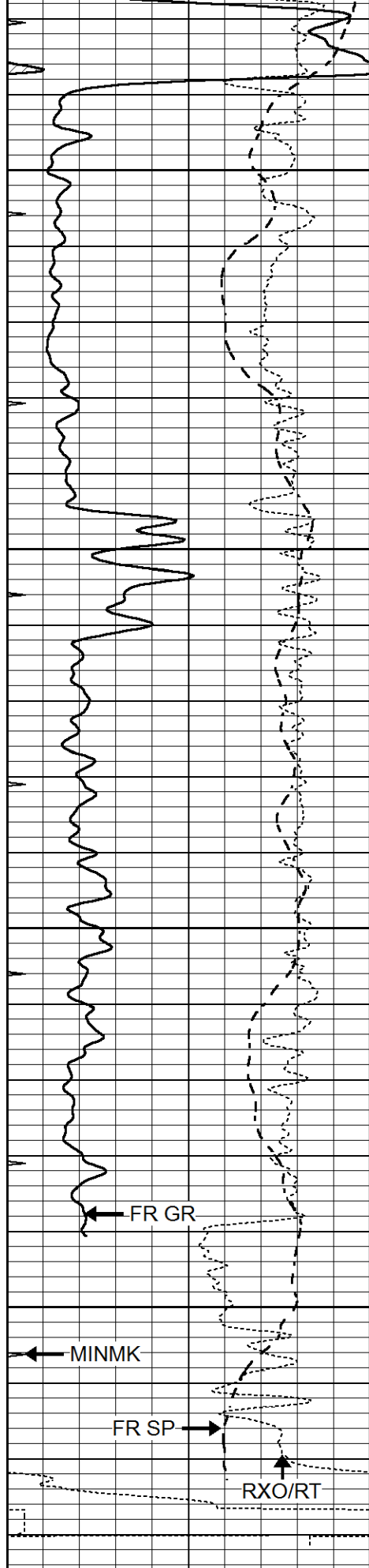
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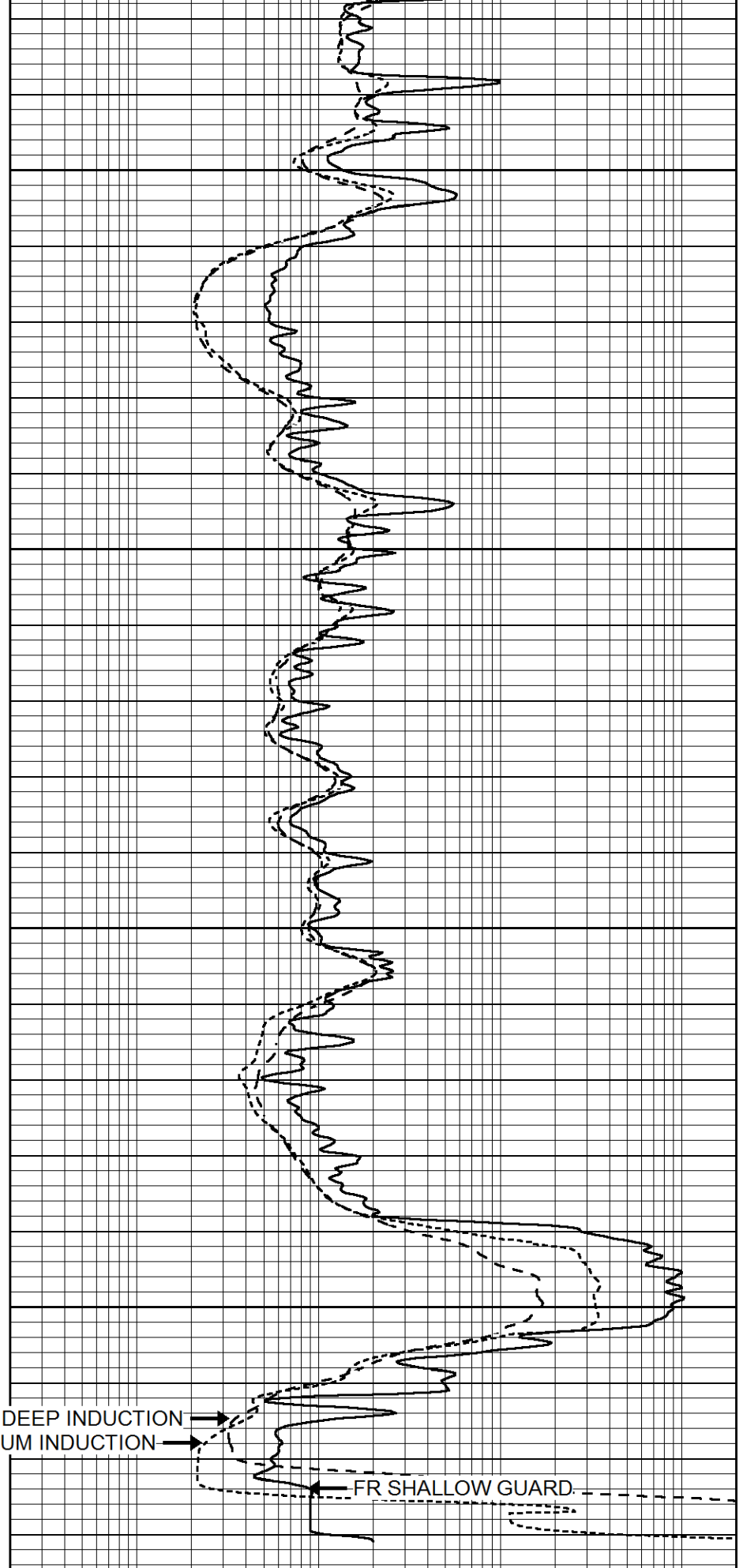
5800

5850

5900

LTD 5926

0 GAMMA RAY (GAPI) 150
-100 SP (mV) 100
-250 Rxo/Rt 50



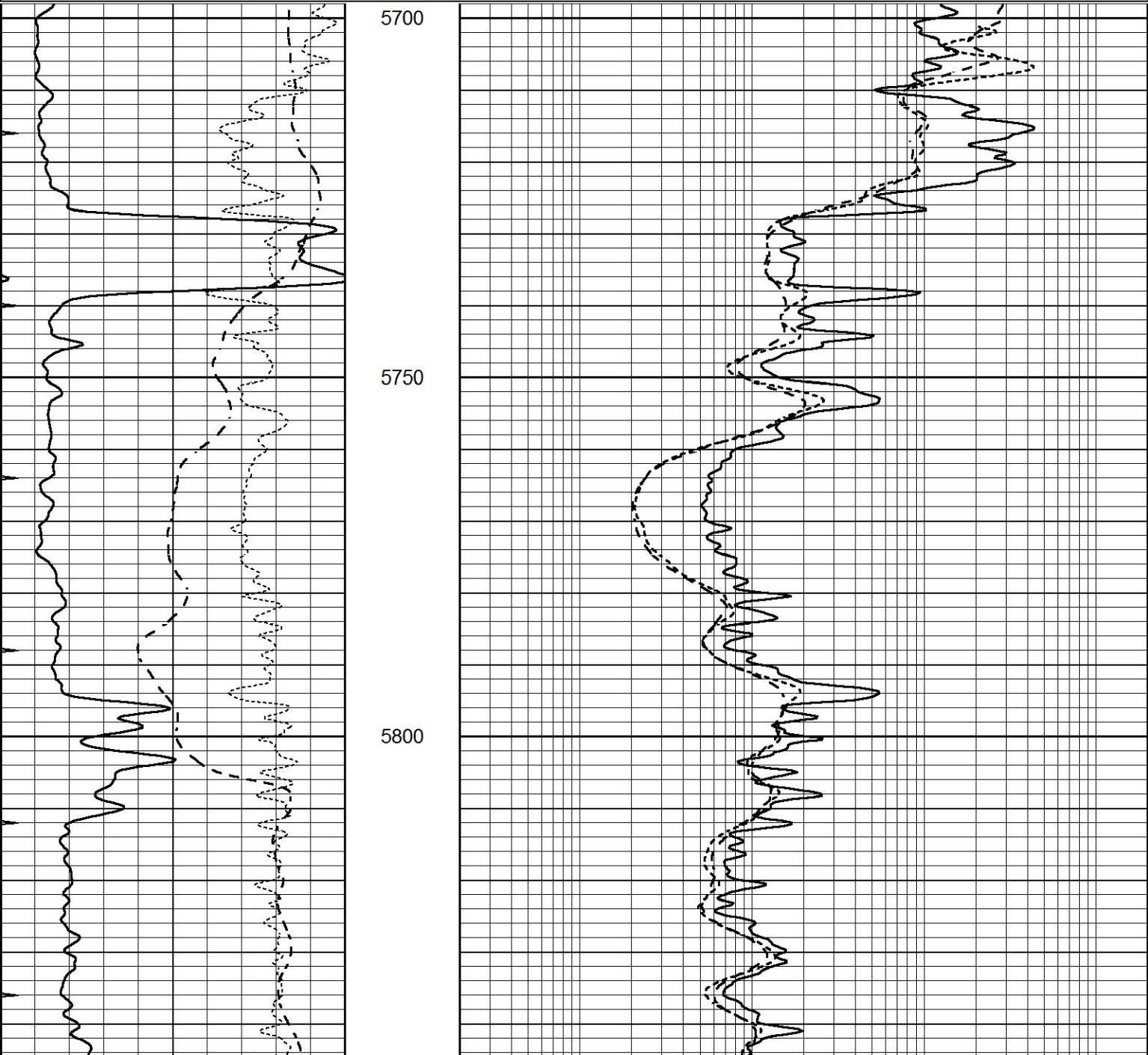
0.2 SHALLOW GUARD (Ohm-m) 2000
0.2 DEEP INDUCTION (Ohm-m) 2000
0.2 MEDIUM INDUCTION (Ohm-m) 2000

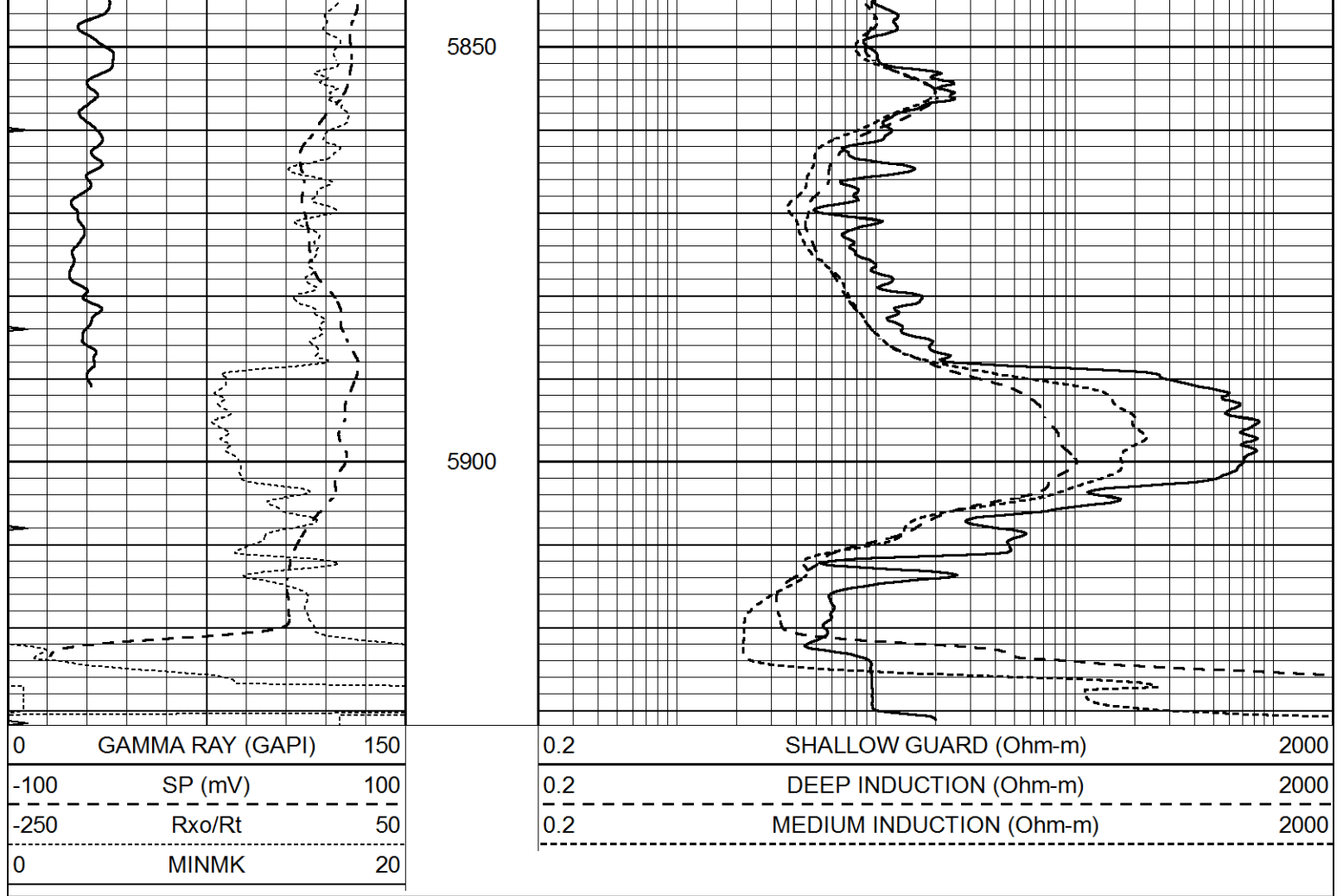


REPEAT SECTION

Database File	6917pe.db
Dataset Pathname	pass2.1R
Presentation Format	_dil
Dataset Creation	Sat Sep 03 10:05:11 2022
Charted by	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	DEEP INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
0	MINMK	20			





Calibration Report								
Database File	6917pe.db							
Dataset Pathname	pass3.1M							
Dataset Creation	Sat Sep 03 10:04:35 2022							
Dual Induction Calibration Report								
Serial-Model:			PROBE8-DILG					
Surface Cal Performed:			Fri Sep 02 23:18:03 2022					
Downhole Cal Performed:			Mon Jul 28 11:08:27 2008					
After Survey Verification Performed:			Mon Jul 28 11:08:27 2008					
Surface Calibration								
		Readings			References		Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	640.000	6.000
Medium	0.029	0.796	V	0.000	464.000	mmho/m	630.000	-5.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.017	0.657	V	0.000	400.000	mmho/m	625.153	-10.619
Medium	0.016	0.757	V	0.000	464.000	mmho/m	625.992	-9.739
Downhole Calibration								
		Readings			References		Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	2.011	405.777	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	7.590	503.393	mmho/m	1.000	0.000
LL3		7.500	V		1500.000	Ohm-m		

LL3	1.000	V	1000.000	Ohm-m
	0.000	V	20.000	Ohm-m
	-7.200	V	3800.000	mmho-m

After Survey Verification								
	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
LL3		1.000	Ohm-m		1.000	Ohm-m		
		0.000	Ohm-m		0.000	Ohm-m		
		1.000	mmho-m		1.000	mmho-m		

Litho Density Calibration Report	
Serial: 004	Model: PRB

Master Calibration		Performed Tue Aug 02 11:29:35 2022			
	Background	Magnesium	Aluminum	Aluminum+Fe	
Window 1	1154.2	10019.5	3137.9	2795.6	cps
Window 2	1054.4	8597.6	2733.4	2469.5	cps
Window 3	902.3	5241.4	1832.1	1719.3	cps
Window 4	251.9	261.1	255.8	252.9	cps
Long Space	0.0	7543.2	1679.0	1415.0	cps
Short Space	4.4	2049.3	1321.7	1116.8	cps
Rho		1.7100	2.5900	0.0000	g/cc
Pe		2.0000	2.7500	5.7900	
Rib Angle	: 43.7	Rib Slope	: 0.957	Density/Spine Ratio	: 0.562
Spine Angle	: 73.7	Spine Slope	: 3.426	Spine Intercept	: -17.2

Before Survey Verification		Performed Wed Dec 31 18:00:00 1969			
Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

After Survey Verification		Performed Wed Dec 31 18:00:00 1969			
Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

Compensated Neutron Calibration Report	
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Serial Number:	070808PMC
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PRE-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

POST-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number:	070558	
Tool Model:	OPEN_GR	
Performed:	Fri Sep 02 23:18:15 2022	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.3000	GAPI/cps